Holding the Line: Stressors, Wellbeing, and Coping in Crisis Supporters

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Abstract

Crisis lines provide vital suicide prevention services, yet little is known about the wellbeing of those who deliver this support. Crisis supporters have a demanding role and are routinely exposed to trauma and suicidality, while often receiving limited training and support. Despite their importance to mental health care systems internationally, research into their wellbeing and avenues for intervention remains scarce. This thesis addresses these gaps by examining the contemporary state of stressors, wellbeing, coping strategies, and support preferences among crisis supporters. Guided by the Appreciative Inquiry framework, findings from several novel empirical studies are integrated to inform the co-design of a wellbeing intervention tailored to this workforce.

Four empirical studies are presented in this thesis. **Chapter 2** reports a quantitative survey of crisis supporters across 38 Australian crisis lines (n = 422), identifying key stressors, including trauma exposure and challenging caller profiles. While many reported high levels of compassion satisfaction, a subsample experienced high compassion fatigue and psychological distress, with coping strategies differentially associated with these wellbeing outcomes. **Chapter 3** presents qualitative interviews with 15 crisis supporters, providing deeper insights into role satisfaction, impacts to wellbeing, coping, and support preferences. **Chapter 4** synthesises existing evidence through a systematic review and meta-analysis of wellbeing interventions for roles that provide counselling to people in crisis. Interventions showed promise in improving wellbeing, including acceptance and commitment therapy, mindfulness, and psychoeducation-based approaches. Finally, **Chapter 5** describes the co-design of the first documented wellbeing intervention for crisis supporters. Designed in collaboration with an Advisory Group, the prototype was rated as acceptable, appropriate, and feasible, and received positive feedback on its relevance and practicality.

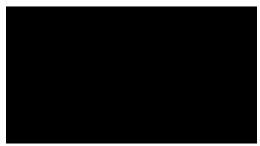
Collectively, this thesis finds crisis support work is a role of meaningful rewards and significant demands. Effective coping strategies and interventions may be able to mitigate the impact of stressors and promote wellbeing. By integrating varied methodologies within an Appreciative Inquiry framework, this thesis advances understanding of crisis supporter wellbeing and produced the first prototype intervention tailored to their needs. Future research should evaluate intervention effectiveness and explore potential implementation into organisations to ensure this workforce can continue its vital role in suicide prevention.

Statement of originality

This is to certify that the content of the thesis is my own work. This thesis has not been submitted for any other degree or purpose.

I certify that the intellectual content of this thesis is the product of my own work, and that all assistance received in preparing this thesis and all sources have been acknowledged.

Jayden Sercombe



30th September 2025

Acknowledgements

A few years ago, I was a fresh Honours graduate and was very sure I wanted to train as a clinical psychologist, rather than go into research. When I told a post-doc in my lab that I would never do a PhD, she just laughed at me and said, "they'll get you eventually". Six years later and at a different university, I still don't know who *they* are but it's true, they did.

One large reason I am here is that Kath Mills set me on the path leading to this PhD. I am grateful for the opportunities she has provided and her mentorship over the past five years. I am incredibly fortunate to have a supervisory team that cares about my thesis as much as I do. Thank you to Mark Deady for your calm guidance and for sharing your expertise in workplace mental health, which has greatly enriched this project. Thank you also to Emma Devine, whose patience, generosity with her time, and ability to see through the eyes of a PhD student helped me through tougher moments.

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Author attribution statement

At the time of submission, this thesis contains one chapter that was adapted and published in a peer-reviewed journal. The other three empirical chapters are in preparation for future submission for publication.

A version of the study presented in **Chapter 2** is published in *Crisis* as:

Sercombe, J., Devine, E. K., Deady, M., & Mills, K. L. (2025). Holding the line - Mental well-being, stressors, and coping in crisis supporters. *Crisis*, 46(1), 32–41. https://doi.org/10.1027/0227-5910/a000985

The candidate led conceptualisation, data collection, analysis, and wrote the draft manuscript. The remaining authors contributed to conceptualisation and provided edits and recommendations to the manuscript.

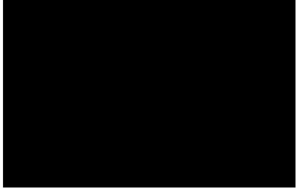
I confirm that the authorship attribution statements above are correct.

Jayden Sercombe

30th September 2025

As supervisor for the candidature upon which this thesis is based, I can confirm that the authorship attribution statements above are correct.

Katherine Mills



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Generative AI statement

During this thesis, the author used ChatGPT (GPT-4.5; GPT-5) for code generation and editing in R, as well as to generate images used as icons in the prototype wellbeing intervention. The author takes full responsibility for the submitted thesis and ensures the work is their own and has used generative AI within the parameters of use.

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Invited seminars

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Sercombe, J. (2023, November). Update on crisis supporter wellbeing. Seminar. Presented to Lifeline Centralised In-Shift Support Team, Lifeline Australia.

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Sercombe, J. (2023, September). Update on crisis supporter wellbeing. Seminar. Presented to Lifeline Australia head office staff.

Sercombe, J. (2023, February). Update on crisis supporter wellbeing. Seminar. Presented to eheadspace Digital Mental Health Program leadership meeting, headspace Australia.

Public impact of this thesis

Influence on policy and practice

Throughout this thesis, the candidate made a distinct effort to communicate relevant findings to crisis supporters and crisis line organisations. Key results and actionable takeaways from **Chapters 2** and **3** were presented in seminars delivered to staff, volunteers, and executive teams across three crisis line organisations. Study participants also received findings in the form of an infographic distributed by email (**Appendix L**). The co-design process detailed in **Chapter 5** extended this commitment by directly involving crisis supporters in shaping research about their wellbeing.

This thesis had real-world impact at Australian crisis lines. As a result of presentations to stakeholders, findings influenced policy and practice at two major crisis line organisations. Specifically, findings from **Chapters 2** and **3** informed updates to onboarding and staff support strategies at Kids Helpline.

Further, findings from **Chapter 2** featured in the Lifeline Australia Annual Report (2024), which discussed implications and future plans for collaboration:

"*Looking after and improving the experiences of our crisis supporters is a key priority for Lifeline Australia. With this in mind, the Lifeline Research Office worked in partnership with a research team from the Matilda Centre at the University of Sydney, to investigate crisis supporter wellbeing. Through an online survey with more than 400 participants, the research team explored the stress factors, levels of mental health and wellbeing, substance use and coping strategies of crisis supporters to gain a better understanding of how best to support this cohort. A paper on the findings, including significant stressors and challenges, has been submitted for review by a peer-reviewed journal. Lifeline Australia plans to use the research to develop and evaluate a wellbeing program tailored to the specific context of our crisis supporters*."

Dissemination through media

The study from **Chapter 2** was profiled in a news article from the University of Sydney: https://www.sydney.edu.au/news-opinion/news/2024/12/18/support-workers-experience-psychological-distress.html

In addition, the candidate presented for mental health week in two University of Sydney Instagram videos, discussing compassion fatigue among other topics, which have amassed over 130,000 views collectively.

Additional presentations during candidature

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University of Sydney units of study during candidature

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Chapter 1

General introduction

"*No one is useless in this world who lightens the burdens of another*" — *Charles Dickens*

Suicide prevention remains a public health priority in Australia and internationally (World Health Organization [WHO], 2025). Crisis lines are a core component of this response, providing immediate, technology-mediated support to people in emotional distress or suicidal crisis (WHO, 2013). Despite their importance to mental healthcare systems around the globe (National Suicide Prevention Office [NSPO], 2025; Turecki et al., 2019), comparatively little is known about the wellbeing of the crisis supporters who staff these services, or about effective strategies to promote their wellbeing.

Existing research has found that crisis supporters derive meaningful benefits from their role, including compassion satisfaction (Donnellan et al., 2023; Sundram et al., 2018). At the same time, they frequently engage with suicidality, trauma, and complex caller profiles, and report experiences of compassion fatigue and psychological distress (Aldrich & Cerel, 2020; Vattøe et al., 2020; Willems et al., 2021). The crisis support environment has also shifted considerably in recent years, with the rapid expansion of chat-based services and widespread adoption of remote work (Gould et al., 2021; Lifeline, 2024; Willems et al., 2021). Yet little is known about how these contemporary factors shape role demands or affect wellbeing. Moreover, the prevalence of key wellbeing outcomes, including compassion satisfaction, compassion fatigue, and psychological distress remains under-researched. Further, while coping strategies have been noted as important for managing role-related stress, few studies have examined how crisis supporters cope in their role and none investigate substance use in detail (Kitchingman et al., 2018c; Kitchingman et al., 2024; Roche & Ogden, 2017). Critically, research into interventions to promote crisis supporter wellbeing is almost non-existent, and there is little evidence to guide the design of such interventions.

This thesis describes four empirical studies that advance the field of crisis supporter wellbeing by addressing the following research objectives:

1. Identify the stressors experienced in the crisis supporter role.
2. Examine levels of wellbeing and associated factors.
3. Investigate strategies that crisis supporters use to cope in their role.
4. Determine the efficacy of interventions that aim to improve the wellbeing of roles that provide counselling to people in crisis.
5. Investigate how crisis supporters prefer to be supported in their role.
6. Co-design a prototype wellbeing intervention tailored for crisis supporters and conduct a preliminary evaluation of its acceptability, appropriateness, and feasibility.

Before addressing these objectives, this chapter provides context by outlining the history of crisis lines, their current role in mental health systems, and evidence for their effectiveness. It then turns to the crisis supporter role and associated stressors, before discussing research on wellbeing, including empathy-based stress and related factors. Finally, it reviews available evidence on sustaining and promoting wellbeing in crisis supporters and comparable roles, before outlining four novel empirical chapters that address the research objectives.

1.1 Suicide and crisis lines

Suicide is a leading cause of death worldwide, accounting for one in every 100 deaths (WHO, 2024). More than 700,000 lives are lost each year to suicide, and for each death it is estimated that there are another 20 attempts (WHO, 2025). Although the risk of death by suicide is higher among men, young people, First Nations people, LGBTQ+ communities, and those experiencing socioeconomic disadvantage, suicide occurs across countries and contexts (Turecki et al., 2019).

In Australia, suicide is the leading cause of death for those aged 15–44 and accounts for the highest number of years of potential life lost (Australian Institute of Health and Welfare, 2025). In 2023, 3,214 Australians died by suicide, with a median age of only 45.5 years (Australian Bureau of Statistics [ABS], 2023a). Each death has a profound impact on individuals, families, and communities (Pitman et al., 2014). Consequently, there is a critical need for effective suicide prevention services. Support is especially vital to provide during brief crisis points where suicidal intent peaks (Hawton, 2007).

'Crisis lines', also known as suicide or crisis hotlines and helplines, are technology-based support services (i.e., delivered over telephone or chat-based modalities) that aim to reduce distress and suicidal intention at crisis points (Hoffberg et al., 2020; Kalafat et al., 2007). The services are highly accessible and offer support to people experiencing emotional distress,

loneliness, or suicidality. Core tenets of crisis lines are that they are delivered free of charge, and often operate 24 hours a day, 7 days a week (WHO, 2013). They provide non-judgemental counselling, and may offer referral to local health care providers for further intervention (Hoffberg et al., 2020). As callers typically remain anonymous, these services generally provide one-off support.

1.1.1 The origins and evolution of crisis lines

Crisis line interventions have been delivered over telephone since the 1950s, with some services beginning as a single phone (R. J. Watson & Spiteri, 2020; WHO, 2013). The first crisis lines were founded by churches, such as the Samaritans in the United Kingdom (U.K.), and based their services on Christian principles. Lifeline, the largest helpline in Australia, was started in 1963 after the evangelist Sir Alan Walker received a phone call from a man in crisis, who later died by suicide (Breen, 2021). The line received over 100 calls on the first day of operation, and now receives over a million calls a year (Lifeline Australia, 2024). Since then, the number of crisis lines has grown across the world (WHO, 2013). Today, over 1,400 crisis lines, across 50 countries, are listed by the International Association for Suicide Prevention (IASP, 2025), although this figure is likely an underestimate.

In 2023, over 40 crisis lines were active in Australia, forming an integral component of mental health infrastructure (Australian Institute of Family Studies [AIFS], 2023). The services were a priority domain in the Australian Government's 2020–2023 National Suicide Prevention Strategy and continue to feature in the 2025–2035 Strategy (Australian Government Department of Health and Aged Care, 2020; National Suicide Prevention Office, 2025). Within these strategies, they are acknowledged as an evidence-based and accessible source of support, as well as referral, and a key targeted intervention for people in suicidal crisis. As such, some crisis lines are partially funded by the state or federal government but administered by not-for-profit organisations, such as Lifeline, Kids Helpline, and Beyond Blue. A unique feature of technology-based support, like crisis lines, is their immediacy, which may help to bridge gaps in the mental health care system (Pisani et al., 2022; Subotic-Kerry et al., 2025). Access to immediate support is critical at a time when Australians are experiencing lengthy waitlists for psychologists and psychiatrists (Pisani et al., 2022; Subotic-Kerry et al., 2025).

Recent years have seen growth in the demand for crisis lines, particularly during periods of heightened community distress. During the COVID-19 pandemic, call volumes to both phone and chat-based crisis lines increased by as much as 40–50% (Batchelor et al., 2021; Brülhart et al., 2021). In peak periods, demand can outstrip an already stretched workforce capacity (Willems et al., 2021). For example, during a surge in call volumes, the average wait time for the United

States (U.S.) 988 Lifeline rose from an average of 30 seconds in early 2024 to four minutes in July (Substance Abuse and Mental Health Services Administration, 2025). This led to an increase in call abandonment rates from 9% to 15%, equating to hundreds of thousands of people who did not receive help. Similarly, at Lifeline in Australia, as many as 100,000 help-seekers a year hang up within one minute of the service's average wait time of almost three minutes (Lifeline Australia, 2024). Despite being under-resourced, crisis lines remain a cornerstone of global mental health systems, and since their conception have evolved to meet contemporary demands and callers' needs.

One of the most significant changes in the evolution of crisis lines has been the provision of services over online chat or text, rather than over the phone. For simplicity, these modalities will be referred to as 'chat-based' support in this thesis. In Australia, Lifeline began delivering chat-based support in 2018 and received over 200,000 contacts in 2024 (Lifeline Australia, 2024). Beyond Blue, another not-for-profit crisis support organisation, received 123,000 chat-based contacts in 2023-2024, which accounted for almost half of all interactions with the service (Beyond Blue, 2024).

Research has consistently found that chat-based services reach underserved groups and provide support for individuals who may be unable or less willing to talk on the phone. Of help-seekers accessing Australian chat-based services, 42% indicate that they would not have contacted a telephone-based crisis line (Williams et al., 2021). Some of these help-seekers had difficulties speaking or hearing, while others preferred chat due to a sense of privacy, the time afforded to type messages, and as they felt less vulnerable. In the U.S., 28% of chat-based help-seekers indicated that they had no other sources of support when in crisis, which was particularly the case for those of younger age (Pisani et al., 2022). Indeed, there is significant uptake of the chat-based modality among younger people, and most users are younger than 25 years old (Williams et al., 2021), aligning with research showing that young people prefer to disclose mental ill-health by typing rather than talking (Bradford & Rickwood, 2015).

Evidently, chat-based services are critical to the future of crisis lines, as they are accessed by otherwise unreached groups and reflect shifts in preferred technologies. They also reach people experiencing heightened suicidal distress. Rates of current or recent suicidal ideation are considerably higher in chat-based help-seekers (84% of contacts; Gould et al., 2021) compared to callers to phone lines (23%; Gould et al., 2013). This disparity may reflect the relative anonymity of chat, which may reduce perceived judgement, as has been reported in young people (Bradford & Rickwood, 2015). In summary, both chat-based and phone-based crisis lines form an essential part of global suicide prevention infrastructure.

1.1.2 The effectiveness of crisis lines

Although crisis lines have been difficult to evaluate, available research suggests that they are effective in improving a range of outcomes in help-seekers. In a systematic review of 33 studies conducted across 11 countries, Hoffberg and colleagues (2020) found general support for the effectiveness of crisis lines in improving psychological distress, suicidality, and service use in help-seekers. However, the literature is not without limitations. The authors noted that there were few high-quality studies available, around half were conducted in North America and are thus not representative of broader contexts, and only three studies evaluated chat-based services. Sixteen studies evaluated short-term outcomes, typically analysing change from the beginning to the end of an interaction. While positive effects were observed, such as reductions in distress (e.g., a 43% decrease; Ramchand et al., 2017) and suicidality (e.g., a 53% decrease; King et al., 2003), these studies were primarily uncontrolled.

Seventeen of the 33 studies included in the systematic review analysed long-term outcomes, including subsequent mental health service utilisation and suicidal behaviour. A key study that linked call records from a U.S. Veterans crisis line with medical data (n = 13,444) found that after receiving a referral, a majority of help-seekers attended in-person services within one week (Britton et al., 2016). Specifically, 91% of those with prior use of the in-person service and 71% of first-time users attended an appointment, providing evidence that crisis lines can successfully facilitate ongoing help-seeking. However, studies assessing long-term outcomes were often affected by potential sources of bias including high attrition, unblinded approaches, and used measures with poor reliability (Hoffberg et al., 2020). Despite these limitations, prior research generally indicates that crisis lines are effective sources of support.

One factor which can impact the effectiveness of crisis lines is the people who staff them, who are referred to as crisis supporters. One of the most methodologically rigorous studies, a U.S. randomised controlled trial (RCT; n = 1,507) conducted by Gould and colleagues (2013), found that workers trained in suicide intervention skills provided more effective support compared to those who were untrained. Specifically, trained crisis supporters were more likely to reduce caller suicidality (OR = 1.74) and depression symptoms (OR = 1.31) compared to those who had not been trained. Critically, an Australian study of volunteer crisis supporters found an association between higher levels of work-related psychological distress and lower intentions to use key suicide intervention skills (Kitchingman et al., 2018c). As such, the wellbeing of crisis supporters may have implications not only for those in the role, but for the quality of care delivered by crisis lines to the wider community.

1.2 The crisis supporter role

Crisis supporters are the workforce who answer phone and chat-based contacts, providing support and suicide intervention (WHO, 2013). Crisis supporters are classified as helping professionals, which are roles that aim to support others' wellbeing. While there are no concrete estimates of how many crisis supporters are active internationally, there are clearly significant numbers in the role. The International Federation of Telephone Emergency Services has over 20,000 volunteers across 338 centres in Europe and Lifeline International operates across 27 countries (IFOTES, 2024; Lifeline International, 2024). Lifeline, Australia's largest crisis line, reported over 4,000 crisis supporters across phone and chat-based services in 2022 (Lifeline Australia, 2022). In addition, more than 40 other crisis lines are operating across the country, albeit at a smaller scale, each with their own cohort of crisis supporters (AIFS, 2023).

While some crisis line organisations require qualifications in mental health or social work for their crisis supporters, most are laypeople trained in crisis intervention techniques (WHO, 2013). As such, many fall under the definition of lay counsellors; community members without formal mental health accreditation who are trained to deliver one or more specific mental health interventions (Connolly et al., 2021). Their training typically focuses on active listening, emotional validation, and empowering help-seekers to take positive action (Gilmore et al., 2022; Gould et al., 2013).

Crisis supporters are a heterogeneous workforce with diverse working arrangements and role demands. Volunteer crisis supporters may conduct a few hours of crisis support per week, whereas others are paid employees who cover more shifts, up to full-time rosters (Taylor & Furlonger, 2011; Willems et al., 2021). Additionally, there is variation in the experience of delivering phone-based compared to chat-based support. Phone interactions are typically shorter than chats (approximately 26 vs 40 minutes), and chat-based crisis supporters may manage two or more simultaneous conversations (Chiang et al., 2024; Gould et al., 2013). Although usually based in an office environment, recent years have seen many now working partially or entirely remotely (e.g., working from home; Donnellan et al., 2023; Willems et al., 2021).

Like the callers they help, crisis supporters can themselves benefit from their work. Crisis supporters report a sense of purpose, connectedness with help-seekers and peers, and development of interpersonal skills from operating in their role (Aguirre & Bolton, 2013; Sundram et al., 2018; Yanay & Yanay, 2008). They report feeling rewarded by helping others and giving back to the community, particularly if they had previously received help for their own mental ill-health (Pollock et al., 2012; Vattøe et al., 2020). Several of these reported benefits are

core aspects of compassion satisfaction, which is defined and explored in subsection 1.4.1. Positive outcomes gained from the role are particularly important, given that most crisis supporters volunteer their time without financial compensation.

1.3 Stressful aspects of the crisis supporter role

While crisis support work can be rewarding, the role presents several unique stressors. A primary stressor, by virtue of the nature of the role, is supporting individuals experiencing suicidality, where help-seekers may disclose recent suicide attempts, self-harm, or engage in suicidal behaviour during an interaction. In a study of 543 volunteers at a Dutch crisis line, participants rated their encounters with suicidal callers as the most stressful aspect of the role (Willems et al., 2021). Another primary stressor is exposure to descriptions of the traumatic experiences of others, whereby crisis supporters often hear vivid, graphic accounts of trauma from callers in acute distress (Taylor & Furlonger, 2011). In a qualitative study of Norwegian crisis supporters, interactions with traumatised callers were described as particularly distressing, with some volunteers reporting recurring, intrusive thoughts of callers' stories and voices after the interaction had occurred (Vattøe et al., 2020). The impact of providing compassionate support to traumatised individuals is explored further in subsection 1.4.2.

There are also certain caller profiles which can present challenges. Firstly, frequent callers pose an operational and emotional stressor. Although crisis lines are primarily designed for brief, short-term support during acute emotional distress, some individuals may use them regularly. A study of 400,000 calls to an Australian crisis line found that 3% of callers accounted for 60% of all calls (Spittal et al., 2015). Frequent callers present with complex and persistent needs and may habitually seek help in prolonged interactions. While their repeated contact reflects significant underlying distress, it can create tension for crisis supporters balancing empathy with the need to maintain service accessibility for other callers (Gilat & Rosenau, 2011; Pirkis et al., 2016).

A second challenging profile is "sex callers", who contact crisis lines to seek sexual gratification (Allan et al., 2025). These callers use euphemistic language while feigning to seek support and may masturbate during an interaction. The experience of these calls is distressing, and can leave crisis supporters feeling shocked and manipulated (Pollock et al., 2012; Willems et al., 2021). The occurrence of sex calls dates back to the inception of crisis lines, with reports as early as 1954 (Varah, 1973).

In summary, prior research has offered valuable insights into stressors experienced by crisis supporters. However, much of this work predates major shifts in the sector, such as the rapid

expansion of chat-based support and the continuation of remote work arrangements beyond the COVID-19 pandemic. Emerging evidence suggests these developments may alter stressors. For example, studies of chat-based lines have documented high suicidality among help-seekers (Gould et al., 2021). This may increase exposure to suicide-related traumatic content for chat-based crisis supporters, though this has not been reported on. In relation to remote work, one quantitative (Willems et al., 2021) and one qualitative study (Cooney & McCashin, 2023) have identified isolation as a resultant stressor.

In addition, all qualitative and quantitative studies examining stressors have sampled from a single crisis line. Even Willems et al.'s (2021) study, which is the most comprehensive quantitative investigation of stressors, recruited from a single volunteer-based service. As such, current research on stressors may be more reflective of specific organisational contexts than the broader experiences of crisis supporters. Therefore, there is a clear need for contemporary quantitative and qualitative investigations that recruit across multiple crisis lines to better capture the experiences of this diverse workforce.

1.4 Crisis supporter wellbeing

Mental wellbeing is a broad construct encompassing psychological, emotional, and social health (Dodge et al., 2012; Keyes, 2002). It is closely related to, but not defined by the absence of mental ill-health (Mason-Stephens et al., 2023). Contemporary public health approaches to mental wellbeing emphasise both hedonic (‘feeling good’) and eudaimonic (‘functioning well’) components (Huppert & So, 2013; WHO, 2021). As such, when considering crisis supporters, it is important to examine positive affective experiences (e.g., compassion satisfaction), as well as mental ill-health, and subsequent downstream effects on functioning. For brevity, *mental wellbeing* will be referred to as *wellbeing* throughout this thesis.

1.4.1 Wellbeing and functional impairment in crisis supporters

Maintaining the wellbeing of crisis supporters is critical for the workers themselves, but also for the functionality and sustainability of crisis lines. Studies have shown that key aspects of wellbeing, including compassion satisfaction and psychological distress, play a role in crisis line services quality and intention for crisis supporters to leave their role (Kitchingman et al., 2017; Kitchingman et al., 2018c; Willems et al., 2021).

As discussed in section 1.2, crisis supporters describe a range of rewarding aspects of their role, many directly related to caring for others, including feelings of altruism, a sense of purpose or belonging, and contributing to society (Aguirre & Bolton, 2013; Sundram et al., 2018). These

positive experiences align closely with a key aspect of wellbeing in this population, compassion satisfaction, which is defined as the pleasure derived from helping others (Stamm, 2015).

Until recently, compassion satisfaction had not been quantitatively examined in crisis supporters, despite evidence in other helping professions that it is linked to improved mood (Zhang et al., 2018) and lower intentions to leave their role (Greinacher et al., 2022). A limited emerging body of research conducted among remote working volunteer text-based supporters in Ireland (n = 156; Donnellan et al., 2023), volunteers in the U.S. (n = 20; Spafford et al., 2023), and Canadian volunteers and paid staff (n = 136; Lee-Cheong et al., 2025), suggests crisis supporters experience high levels of compassion satisfaction. However, additional research investigating compassion satisfaction in this population is needed, given its likely importance for fostering mental wellbeing, positive experiences in the role, as well as supporting retention.

Psychological distress is a state of emotional stress characterised by symptoms of anxiety and depression (Kessler et al., 2011). In a study of Australian crisis supporters (n = 210), 28% reported moderate to very high psychological distress, which was associated with cutting back on tasks at work (Kitchingman et al., 2017). In turn, a secondary analysis indicated that crisis supporters who felt more impacted by psychological distress at work reported lower adherence to counselling protocols (Kitchingman et al., 2018c). As demonstrated by Gould et al. (2013), the fidelity to counselling techniques in this setting is crucial for the efficacy of delivered care. As such, psychological distress may negatively impact work performance in crisis supporters, which is known as functional impairment, and have downstream effects on the wider community accessing crisis lines (Üstün & Kennedy, 2009).

Willems et al. (2021) investigated the relationship between stressors, psychological distress, and crisis supporter attrition. In crisis line volunteers, the frequency of experiencing work-related stressors was associated with distress, as well as intention to leave the role. As such, unmitigated stressors, and resultant psychological distress likely play a role in turnover, which is a significant challenge for crisis line organisations due to the costs associated with recruiting and training new crisis supporters (Roche & Ogden, 2017), and the potential consequences of leaving phone and chat lines unmanned in times of community need.

Despite the importance of compassion satisfaction and psychological distress to the functionality and sustainability of crisis lines, research on these outcomes within crisis supporters remains limited. Existing studies have sampled from single organisations, limiting generalisability to the broader crisis support workforce, which varies in structure (e.g., full-time paid employees vs volunteer-based models). There is a need for research conducted across

geographically and organisationally diverse samples of crisis supporters that examine levels of compassion satisfaction and psychological distress.

1.4.2 Empathy-based stress

It is widely accepted that individuals, particularly mental health workers, who support others and are indirectly exposed to their trauma, are at risk of negative psychological consequences themselves, including empathy-based stress responses (Figley, 1995; Kitchingman et al., 2018c; Sprang et al., 2019). Empathy-based stress encompasses several distinct yet overlapping constructs including i) secondary traumatic stress (STS), ii) vicarious trauma, iii) compassion fatigue, and iv) burnout.

STS refers to symptoms arising from professionally engaging with traumatised individuals and was originally operationalised as a concept related to post-traumatic stress disorder (American Psychiatric Association, 2000; Figley, 1995). It is characterised by recurring intrusive thoughts of traumatic content, avoidance of reminders of trauma, and heightened arousal (e.g., irritability, sleep disturbances). Similarly, vicarious trauma refers to lasting alterations in cognitive schemas and worldviews, particularly regarding safety, trust, and intimacy, resulting from empathetic engagement with trauma survivors (McCann & Pearlman, 1990; Rauvola et al., 2019). For example, a volunteer at a crisis line who is consistently hearing of intimate partner violence may experience changes in their perception of relationship safety.

Among crisis supporters, limited research has investigated secondary traumatic stress, all using the Professional Quality of Life Scale (ProQOL; Stamm, 2010). Studies suggest low levels of secondary traumatic stress across phone (90% scored in the low range, operationalised as <23; Spafford et al., 2023) and text-based crisis supporters (M = 16.28; Donnellan et al., 2023). A recent study (Lee-Cheong et al., 2025), reported significantly higher rates where 61.8% scored in the high category. Relating to vicarious trauma, 8% of crisis supporters reported high to very high disruptions in beliefs as measured by the Trauma and Attachment Belief Scale (TABS; scores >55; Dunkley & Whelan, 2006). In another study, participants reported an average TABS score within the normal range (M = 46.3) and a mean score of 9.9 on the IES-R (Furlonger & Taylor, 2013).

Compassion fatigue is the emotional strain resulting from empathetic engagement with people who are suffering (Newell et al., 2016). It is characterised by exhaustion, irritability, feeling overwhelmed or ineffective, sleep disturbances, and emotional numbing (Coetzee & Klopper, 2010; Heritage et al., 2018; Stamm, 2010). Despite the apparent relevance of compassion fatigue to crisis supporters, limited research has specifically investigated this construct in the population. O'Sullivan and Whelan (2011) reported that 60.9% of a small sample of Australian

crisis supporters (n = 67) had 'concerning' (scores of ≥8 and above) levels of compassion fatigue.

A concept related to compassion fatigue, burnout, refers to a state of emotional exhaustion and cynicism caused by prolonged occupational stress (Maslach & Jackson, 1981), which has been investigated in crisis supporters. In an early study, 54% of crisis supporters reported experiencing burnout, measured with a single-item measure (Cyr & Dowrick, 1991). Estimates using validated scales are lower, with 6–15% of crisis supporters exceeding cutoffs for medium-high burnout (O'Sullivan & Whelan, 2011; Roche & Ogden, 2017). Recent work reported almost twice the rates of high work-related burnout in crisis supporters (Lee-Cheong et al., 2025) compared to normative data from social and healthcare workers.

There has been widespread debate regarding the understanding of the four empathy-based stress concepts, with these terms inconsistently defined and sometimes used interchangeably (Rauvola et al., 2019). Vicarious trauma has been described to encompass all four concepts (Kim et al., 2021), distinct from the others (Hallinan et al., 2019), or is unaccounted for in models (Stamm, 2010). The dominant view positions compassion fatigue as an overarching concept, comprising i) STS and ii) burnout (Rauvola et al., 2019; Sinclair et al., 2017; Stamm, 2010). This structure is reflected in the widely used Professional Quality of Life-5 scale (ProQOL-5; Stamm, 2010). However, a growing body of psychometric evidence has challenged this model (Cieslak et al., 2014; Geoffrion et al., 2019; Hemsworth et al., 2018). Notably, a meta-analysis of 27 factor-analytic studies concluded that the STS and burnout subscales have substantial shared variance, calling into question their independence (Hotchkiss & Wong, 2022).

Heritage et al. (2018) refined the ProQOL-5 by removing several poorly performing items to produce the ProQOL-21. Factor analysis indicated that the burnout and STS scales showed optimal fit as a single compassion fatigue factor. This revised structure has important implications for conceptualisations of empathy-based stress, identifying a potential jangle fallacy, where the same phenomenon (i.e., compassion fatigue) is referred to by two or more different terms in this field of research (e.g., STS, burnout, vicarious trauma). Further supporting this notion, efforts to create a distinct compassion fatigue scale yield high correlations with burnout and STS scales (Eng et al., 2021). In light of this evidence, the present thesis adopts compassion fatigue as the principal empathy-based stress outcome.

Due to most existing studies of compassion fatigue in crisis supporters using psychometrically inadequate versions of the ProQOL scale (e.g., O'Sullivan & Whelan, 2011), levels of this construct in crisis supporters remain uncertain. Risk factors of compassion fatigue among nurses and other medical workers include fewer healthcare qualifications (Sinclair et al., 2017),

suggesting that compassion fatigue may be a very relevant construct for crisis supporters, who are lay counsellors with limited training. There is a need for research with adequate sample sizes of crisis supporters that use psychometrically robust instruments to establish rates of compassion fatigue. In addition, it is important to move beyond prevalence to understand the risk and protective factors associated with wellbeing in crisis supporters to inform the design of tailored interventions that may increase the sustainability of the workforce.

1.4.3 Factors associated with crisis supporter wellbeing

Demographic and work-based characteristics may play a role in how crisis support work impacts wellbeing, but the evidence remains limited. Age and gender are two of the most well-researched demographic factors in the crisis support literature. Several studies have found that younger crisis supporters report poorer wellbeing-related outcomes, including greater burnout (Lee-Cheong et al., 2025; Roche & Ogden, 2017), higher psychological distress (Kitchingman et al., 2017), lower compassion satisfaction (Lee-Cheong et al., 2025), and lower overall wellbeing (Humer et al., 2022). However, findings related to gender have been less consistent. While Kitchingman et al. (2017) found that female crisis supporters reported greater functional impairment, other studies reported no gender differences in wellbeing (Humer et al., 2022; Lee-Cheong et al., 2025).

A less examined demographic factor in this population is the lived experience of suicide, which is reported by a substantial proportion of crisis supporters. Studies show that 38–50% have experienced suicidal thoughts, 13–25% have made a suicide plan or attempt, and 40–56% have been bereaved by suicide (Kitchingman et al., 2018a; Mishara & Giroux, 1993). Despite this high prevalence, only one study, conducted more than 30 years ago in Canada, has investigated whether crisis supporters with lived experience are at-risk of worse wellbeing from their work, finding no association with post-shift stress (Mishara & Giroux, 1993).

Among work-based factors, experience, defined as time spent undertaking paid or volunteer work in the role, has shown variable associations with wellbeing. Greater experience has been linked to lower pre-shift stress (Mishara & Giroux, 1993), but not to vicarious trauma (Hawgood et al., 2022) or psychological distress (Kitchingman et al., 2017). In contrast, recent findings suggest that more experienced crisis supporters report lower burnout, STS, and higher compassion satisfaction (Lee-Cheong et al., 2025). However, this study used unadjusted models in regression analyses, and as such, age may confound the observed effects.

Few studies have investigated whether delivering a higher volume of support is linked to poorer wellbeing. While Willems et al. (2021) found that greater hours on the line were associated with increased perceived work demands, Roche & Ogden (2017) observed no significant relationship

between hours and burnout. To date, no research has investigated whether paid versus volunteer status moderates wellbeing outcomes.

Finally, emerging features of the crisis support working environment may influence wellbeing but remain understudied. Preliminary evidence shows that remote work may negatively impact wellbeing, potentially through isolation. In one study, experiencing isolation during home-based shifts was strongly associated with distress and intention to leave the role (Willems et al., 2021). This was echoed in qualitative findings, where Irish crisis support volunteers described limited peer contact while working remotely (Cooney & McCashin, 2023). Further research is needed to confirm whether remote work is a risk factor for poorer wellbeing. Another new trend is the rapid growth of chat-based crisis lines. Differences in communication format, demands for multitasking, or in help-seeker profiles may affect wellbeing. However, no research to date has investigated whether wellbeing outcomes differ between chat-based and phone-based crisis supporters.

Together, these findings suggest that certain individual and work-based characteristics may moderate the effect of crisis support work on wellbeing. However, many key characteristics, particularly lived experience, and emerging features of the work environment, remain largely unexplored. Rigorous research is needed that uses multivariate models to control for confounding variables, allowing for more robust estimates of effect in key outcomes such as compassion satisfaction, compassion fatigue, and psychological distress. Identifying potential risk and protective factors for crisis supporters has utility for tailoring support initiatives for those undertaking paid or volunteer crisis support work. However, in addition to identifying who may be most at risk, it is important to also understand how to support the wellbeing of crisis supporters more broadly.

1.5 Managing and promoting crisis supporter wellbeing

Supporting the wellbeing of crisis supporters is essential for the sustainability of crisis lines, as well as for those in the role. As outlined in section 1.4, wellbeing depends on the resources available to address challenges (Dodge et al., 2012). These resources may leverage a crisis supporter's internal resources, such as coping strategies, or be external resources provided by organisations, such as wellbeing strategies or interventions.

1.5.1 Coping strategies

A key determinant of mental wellbeing is the capacity to adapt to and address challenges using available internal resources (Dodge et al., 2012). Coping strategies, defined as the cognitive and behavioural efforts to manage stress, play a central role in this process (Lazarus & Folkman,

1984). As discussed in section 1.3, certain stressors are inherent to crisis support work, and previous research emphasises the importance of coping in managing these challenges (Willems et al., 2020).

Multiple frameworks exist for classifying efforts at coping. Coping strategies are often categorised dichotomously as i) adaptive or ii) maladaptive, referring to whether they are associated with positive or negative psychological and health outcomes (Trudel-Fitzgerald et al., 2024). Other research has contended that this dichotomy is too simplistic, arguing that the adaptability of a strategy can be context-dependent (Bonanno & Burton, 2013) or initially effective in alleviating stress but not in solving a problem over the long-term (Stallman, 2020).

A widely used framework, extending Lazarus and Folkman's (1984) seminal work, categorises strategies as i) problem-focused, ii) emotion-focused, or iii) avoidant (Dias et al., 2012). Problem-focused coping refers to efforts to directly address a source of stress, for example, developing a plan of action. Emotion-focused coping involves strategies that regulate emotions associated with a stressor, including humour, acceptance, and venting. Avoidant coping is characterised by strategies that involve disengaging with a stressor, such as denial, distraction, or substance use (Folkman & Moskowitz, 2004).

A strength of this framework is its robust factor structure, which has been validated in populations of helping professionals (Jamal et al., 2022; Zeladita-Huaman et al., 2024). Typically, problem-focused coping is linked to more favourable mental wellbeing outcomes, avoidant coping is related to poorer mental wellbeing, while the impact of emotion-focused coping on wellbeing is mixed (Dias et al., 2012). Although little is known about coping strategies in crisis supporter populations, some research has replicated this pattern. In Malaysian crisis supporters, Kaur et al. (2021) found that higher compassion satisfaction was positively associated with problem-focused coping, and negatively associated with avoidant coping. Problem-focused coping has also been shown to be related to lower vicarious trauma (Dunkley & Whelan, 2006), and avoidant coping with increased burnout (Roche & Ogden, 2017). However, no studies have examined how coping strategies are related to compassion fatigue as a unidimensional construct.

Psychological distress in crisis supporters can impair functioning in several domains, and coping strategies have been shown to influence this relationship. In a repeated measures study, Kitchingman et al. (2018a) measured functional outcomes directly before shift (T1), directly after shift (T2), and in the week following shift (T3), although no causal inference methods were applied. Psychological distress was associated with functional impairment in work, domestic, and personal domains at T1 and at the pooled T2–T3 time points. Importantly, the strength of

these relationships was attenuated by problem-focused coping, but exacerbated by avoidant coping strategies, specifically self-distraction and substance use, providing evidence that coping strategies may play an important role in the management of psychological distress within this population.

Avoidant coping strategies evidently play a role in worsening adverse outcomes among crisis supporters, and given implications for wellbeing, warrants further investigation. In this context, strategies such as self-distraction or substance use may provide immediate relief from work-related distress but contribute to ongoing difficulties. Substance use in particular, has received almost no focused attention in crisis supporter research, having only been investigated as a small component (two items of the avoiding coping subscale) within the brief COPE measure (Carver, 1997; Kitchingman et al., 2018a).

Research suggests that individuals working in other helping professions may use alcohol and other drugs as a means of coping. For example, social workers, who share some role elements with crisis supporters, such as providing counselling, report higher rates of substance use than the general population (Kiepek et al., 2019). Relating more directly to occupational stress, research among public safety personnel, which includes paramedics, demonstrate associations between work-related trauma exposure and increased rates of risky substance use (Bonumwezi et al., 2022; Carleton et al., 2019; Sercombe et al, 2025).

One pathway linking helping professions with substance use is exposure to traumatic content, which is a significant risk factor for problematic substance use. A study of Canadian public safety personnel found that workers who had been exposed to sudden violent death, which included exposure to suicides, through their role had 3.4 times the likelihood of meeting criteria for alcohol use disorder. Crisis supporters also encounter trauma regularly. For example, 31% of crisis supporters report exposure to a death by suicide through their role (Aldrich & Cerel, 2020), and hearing help-seekers recount traumatic experiences is a salient stressor (Taylor & Furlonger, 2011). As such, substance use may be a key component of avoidant coping in this workforce (Roche & Ogden, 2017). Considering the known contribution of substance use to work-related functional impairment and absence (Aas et al., 2017; Amiri & Behnezhad, 2020; Lund et al., 2019), increasing understanding may be important to crisis line functioning.

Evidently, coping strategies play an important role in coping with the stress of crisis support work. However, the existing evidence base is limited, with few studies, inconsistent classification of coping strategies, and no research examining their relationship with psychometrically robust measures of compassion fatigue. Despite the potential harms of problematic substance use, no studies have focused on this issue in crisis supporters. There is a clear need to investigate levels

of alcohol and other drug related harm in this population, alongside broader patterns of coping which may be instrumental in informing interventions to improve wellbeing.

1.5.2 Supporting the wellbeing of crisis supporters

External supports provided by organisations are also critical to crisis supporter wellbeing. Despite growing recognition of the demands associated with crisis line work, there is a scarcity of research into effective external supports. Although recommended approaches exist for enhancing wellbeing, the most common being psychoeducation (Kinzel & Nanson, 2000; Stamm, 2015), self-care (Chandrasekaran et al., 2024), and supervision (Taylor & Furlonger, 2011), these are not supported by evidence from evaluations among crisis supporter populations.

Psychoeducation is the provision of evidence-based information about mental health issues to help individuals better understand their wellbeing (Donker et al., 2009). In commentary papers, researchers have proposed that psychoeducation around concepts such as compassion fatigue or burnout may help crisis supporters recognise symptoms and engage in protective behaviours (Kinzel & Nanson, 2000; Stamm, 2015).

Self-care refers to behaviours that individuals engage in to maintain their wellbeing (Owens-King, 2019). Within the crisis support context, it may involve taking a break to regulate emotions after a stressful interaction or socialising with friends after shift. Self-care is conceptually related to coping strategies, and is a term commonly used by organisations in training and wellbeing promotion (Dunkley & Whelan, 2006). Organisational wellbeing practices that rely heavily on self-care have been criticised, as they leave crisis supporters primarily responsible for navigating their own wellbeing (Chandrasekaran et al., 2024).

Supervision is the most utilised organisation-led strategy to support crisis supporter wellbeing. It involves structured guidance from an experienced practitioner to support professional development and supervisee wellbeing (Milne, 2007). A common application is debriefing, where supervisors provide one-on-one support to crisis supporters after challenging interactions (Kinzel & Nanson, 2000). Cross-sectional research provides limited insight: while some studies have reported that supervision is associated with lower vicarious trauma (Dunkley & Whelan, 2006), others have found no significant relationship (Taylor & Furlonger, 2011).

In summary, while several strategies have been proposed, it is unclear whether any structured interventions have been developed for or evaluated in crisis supporter populations. Further, no studies have investigated how crisis supporters themselves prefer to be supported, with only preliminary insights from Kitchingman et al.'s (2024) qualitative study which reported a few suggestions for improving existing support structures, such as more frequent supervision. Given

the documented prevalence of stressors in the role and subsequent adverse effects to wellbeing (Kitchingman et al., 2018b; Willems et al., 2020), this represents a critical evidence gap. There is a need for evidence-based interventions to promote wellbeing in crisis supporters, informed by investigations of their support needs and preferences.

1.5.3 Interventions for similar workforces

In the absence of evidence-based research for crisis supporters, insights can be drawn from research with other helping professions. Several past systematic reviews have synthesised evidence targeting interventions to address empathy-based stress in helping professionals (Bercier & Maynard, 2015; Kim et al., 2021; Lipsa et al., 2024). Although each review addressed compassion fatigue, vicarious trauma, and secondary traumatic stress, they each referred to empathy-based stress by one overarching term: Kim et al. (2021) used vicarious trauma, Lipsa et al. (2024) used compassion fatigue, and Bercier and Maynard (2015) used secondary traumatic stress.

Kim and colleagues' (2021) scoping review focused on interventions for professionals who support traumatised individuals, finding that mindfulness, psychoeducation, and art and recreation programs were effective in reducing vicarious trauma. Lipsa et al.'s (2024) systematic review and meta-analysis included interventions aiming to reduce compassion fatigue in helping professionals more broadly. The meta-analysis synthesised evidence from 11 RCTs, finding that a range of intervention types, including mindfulness and resilience training, significantly reduced compassion fatigue, with particularly strong effects for online interventions. The findings from these reviews suggest that interventions in helping professional populations can result in considerable improvements to wellbeing.

Critically, a minority of studies in each review focused on professionals who work in mental health contexts, specifically 3.7% (Kim et al., 2021) and 14.6% (Lipsa et al., 2024), respectively. Most studies focus on those in medical healthcare contexts. Bercier and Maynard (2015) reviewed secondary traumatic stress interventions for mental health professionals, finding no studies that satisfied their inclusion criteria. Certain mental health professionals share similar role characteristics to crisis supporters, such as social workers and counsellors. These workforces also provide counselling to people in crisis and are exposed to traumatic material, often with limited training.

Further, existing reviews have limited their focus to interventions addressing empathy-based stress (Bercier & Maynard, 2015; Kim et al., 2021; Lipsa et al., 2024), while several outcomes are relevant to wellbeing in these populations (e.g., psychological distress, substance use). Future

reviews should synthesise evidence relevant to crisis supporters among comparable mental health professions and include a wider variety of outcomes in the search strategy.

In sum, there is an absence of evidence-based wellbeing interventions for crisis supporters, and evidence to inform the development of these is scarce, representing a critical gap in research. In addition to being informed by evidence from comparable roles, wellbeing interventions should be appropriately tailored to the crisis supporter context, informed by existing knowledge of stressors, coping strategies, and preferences for support. To integrate these diverse sources of evidence into a coherent process of intervention development, this thesis applies the Appreciative Inquiry framework.

1.5.4 Appreciative Inquiry

Appreciative Inquiry is a flexible framework that provides a structure for integrating multiple methodologies to address a certain problem (Merriel et al., 2022). Originating in organisational change research, it has since been applied across a range of healthcare and community settings to guide the development of interventions (Dash Bhatt, 2024; Merriel et al., 2022; Snijder et al., 2021). Appreciative Inquiry adopts a strength-based approach and seeks to amplify effective existing strategies. This philosophy aligns well with resilience-focused models of occupational health, which emphasise enhancing protective factors in addition to reducing risks (Robertson et al., 2015).

The framework consists of four phases: *Discover*, *Dream*, *Design*, and *Deliver* (Trajkovski et al., 2013). In the *Discover* phase, researchers gather information about a context, including the population, challenges, and existing strengths. This may involve a literature review, or qualitative or quantitative investigations of end-users (i.e., the target population) and their context (Snijder et al., 2021). The *Dream* phase identifies ideal approaches to support that end-users would like implemented. During the *Design* phase, these insights are integrated to develop an intervention informed by effective current strategies, as well as ideal approaches. Finally, the *Deliver* phase moves to implementation of the intervention.

While varied methodologies can be used within the Appreciative Inquiry framework, co-design processes are often used as a key component, particularly in the *Dream* and *Design* phases. Co-design is a collaborative process that allows end-users to shape project planning, thereby increasing the likelihood that research reflects their priorities and is relevant to their context (Chalmers & Glasziou, 2009). It is defined by the meaningful involvement of end-users from the early stages of a research project (Slattery et al., 2020).

The Appreciative Inquiry framework has demonstrated utility across various contexts. For example, a systematic review of 33 studies applying Appreciative Inquiry in healthcare found generally positive impacts on workplace behaviour and patient outcomes, albeit from studies of variable quality (Merriel et al., 2022). In community settings, Snijder et al. (2021) applied Appreciative Inquiry to co-design a substance use prevention program with Indigenous Australian communities, reporting strong acceptability. More recently, Jelen et al. (2024) used the framework to identify stressors among healthcare workers and co-design practical supports such as a mentorship program and online community. These studies illustrate the capacity of Appreciative Inquiry to collaborate with end-users to develop tailored, context-specific interventions.

There is a critical need for wellbeing interventions for crisis supporters, who face a demanding work environment and risk their wellbeing (see sections 1.2–1.3). Their support needs likely differ from other helping professionals due to several unique stressors, lower training requirements and the large proportion that are volunteers. Intervention development should therefore be informed by scoping research and actively engage crisis supporters to ensure relevance. The Appreciative Inquiry framework is well-suited for guiding a program of work seeking to develop a wellbeing intervention for crisis supporters as it i) builds on existing coping capacities, protective factors, and organisational supports, and ii) can embed co-design from the outset.

1.6 Summary of knowledge gaps

The existing literature on crisis supporter wellbeing is constrained by several interrelated gaps (outlined in Table 1.1). Much qualitative and quantitative research does not capture emerging features of the role such as remote work and chat-based support, and samples have largely been recruited from single organisations, limiting generalisability. Small sample sizes, and inconsistent definitions and measurement of constructs, particularly of compassion fatigue, further limit our understanding of wellbeing and associated factors. Few studies use multivariate approaches to control for confounding variables. Coping strategies remain underexplored, with investigations of substance use largely absent despite its known associations with avoidant coping. In terms of evidence for wellbeing interventions, reviews focus narrowly on empathy-based stress and primarily draw from healthcare contexts. Importantly, no wellbeing programs tailored to crisis supporters have been developed or evaluated.

Table 1.1 Summary of knowledge gaps.

Knowledge gap	Summary of key limitations of the existing literature
1. Insufficient understanding of the stressors of crisis support work	• Few studies examine emerging features of the work environment, including remote work practices and chat-based support • Most quantitative and qualitative studies sample from a single organisation, limiting generalisability to the wider population of crisis supporters
2. Limited knowledge about crisis supporter wellbeing and associated individual and role-related factors	• Small sample sizes reduce precision of estimates for the prevalence of compassion satisfaction, compassion fatigue, and psychological distress • Limited definitional clarity for compassion fatigue • Lack of psychometrically robust measures of compassion fatigue • Few studies examine associations between wellbeing and demographic or work-based correlates (e.g., lived experience of suicide, remote work, chat-based work) using multivariate models.
3. Limited evidence on coping strategies used by crisis supporters, particularly substance use	• Minimal qualitative research of the range of employed coping strategies. • Inconsistent classification of coping strategies across studies, reducing comparability. • Levels of substance use are unknown, despite its known relevance in avoidant coping.
4. Lack of synthesis of intervention evidence relevant to crisis supporter wellbeing	• Existing reviews include interventions targeting empathy-based stress but not focused on broader wellbeing outcomes. • Existing reviews primarily synthesise evidence from healthcare contexts, not mental health contexts. • No systematic reviews or meta-analyses have been conducted that focus on wellbeing interventions for crisis supporters, or for other populations that deliver counselling to people in crisis.
5. Limited evidence on how crisis supporters prefer to be supported in their role.	• No studies have systematically investigated crisis supporters' support needs or preferences. • Only preliminary insights from Kitchingman et al. (2024), reporting a few suggestions to improve existing structures.
6. No interventions tailored for crisis supporters have undergone evaluation in the literature.	• Few, if any, wellbeing programs have been developed specifically for crisis supporters. • Existing organisational wellbeing strategies are untested in crisis supporter populations (e.g., self-care, debriefing). • No published examples of crisis supporter wellbeing programs.

1.7 Thesis aims and outline

This thesis aims to address the knowledge gaps outlined in the preceding sections. Guided by the Appreciative Inquiry framework, the overarching aim is to improve our understanding of the wellbeing of crisis supporters, to inform the development of an intervention designed to promote their wellbeing. These outcomes have the potential to benefit crisis supporters directly, and in turn, improve the sustainability and quality of the care provided by crisis lines to the wider community.

Specifically, this thesis aims to address six objectives:

1. Identify the stressors experienced in the crisis supporter role (**Chapters 2** and **3**).
2. Examine levels of wellbeing and associated factors (**Chapters 2** and **3**).
3. Investigate strategies that crisis supporters use to cope in their role (**Chapters 2** and **3**).
4. Determine the efficacy of interventions that aim to improve the wellbeing of roles that provide counselling to people in crisis (**Chapter 4**).
5. Investigate how crisis supporters prefer to be supported in their role (**Chapters 3** and **5**).
6. Co-design a prototype wellbeing intervention tailored for crisis supporters and conduct a preliminary evaluation of its acceptability, appropriateness, and feasibility (**Chapter 5**).

These aims are addressed across four empirical chapters (**Chapters 2–5** of this thesis), using the Appreciative Inquiry framework. The placement of each chapter within the framework is illustrated in Figure 1.1, which guides a co-design process with crisis supporters to identify workplace challenges, existing strengths, and support preferences (the *Discover* and *Dream* phases). Subsequently, the approach is used to develop, refine, and preliminarily evaluate a tailored wellbeing intervention (the *Design* phase). Broader implications and recommendations arising from this thesis are presented in the General Discussion (**Chapter 6**).

Chapter 2 – *Discover phase:* reports the first national survey of Australian crisis supporters (n = 539), who undertake paid or volunteer work across a total of 38 crisis lines. The online survey examines stressors, the prevalence of compassion satisfaction, compassion fatigue, psychological distress, and substance use. It also investigates factors that are associated with wellbeing, including coping styles, remote work, and chat-based support.

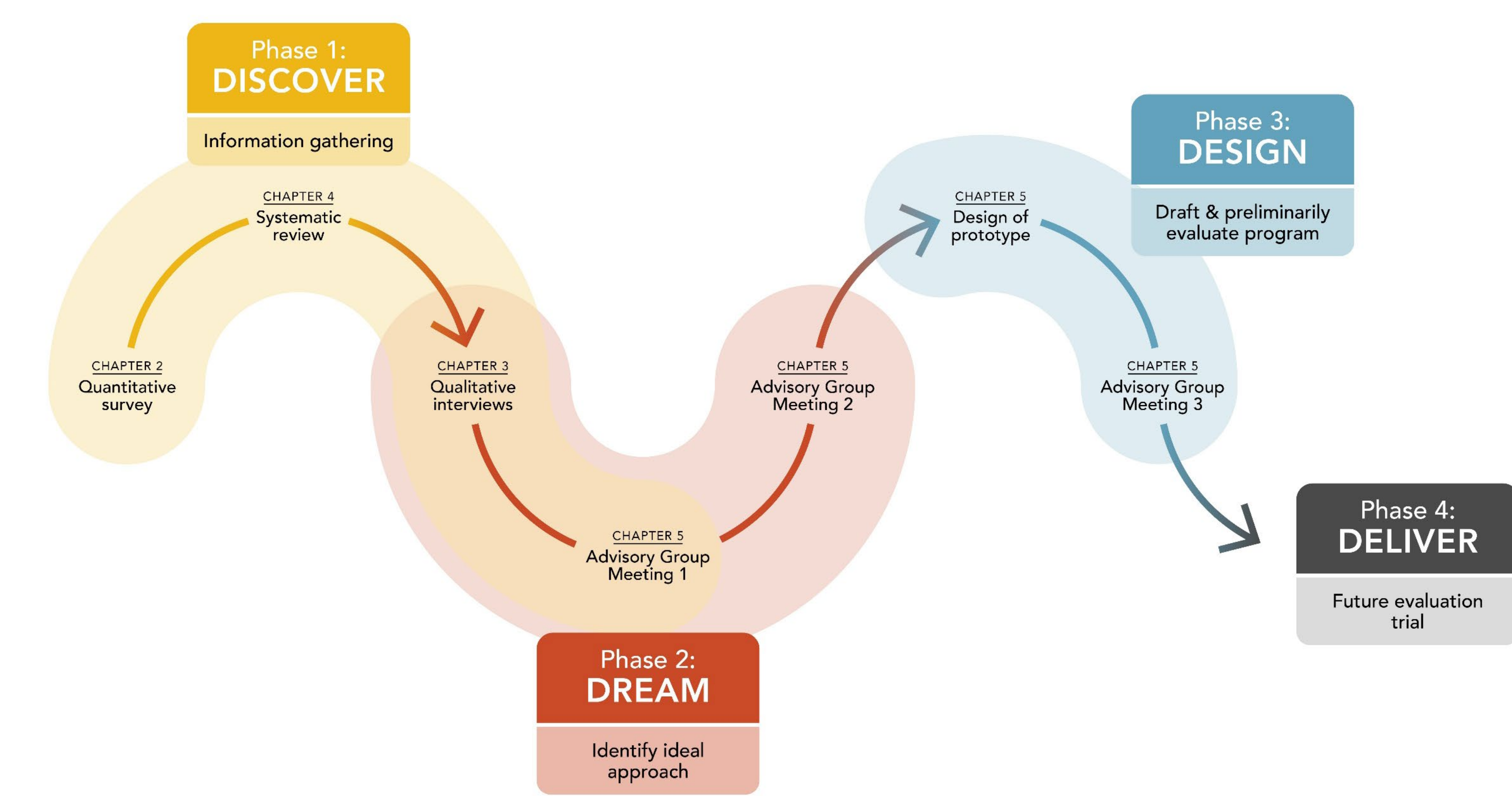
Chapter 3 – *Discover and Dream phases:* presents an analysis of qualitative interviews with 15 crisis supporters, exploring their lived experiences, including motivations, perceptions of

stressors, use of alcohol and other drugs, ways of coping, and preferences for receiving support. Themes are identified and interpreted using a thematic analysis approach.

Chapter 4 – *Discover phase:* provides a systematic review and meta-analysis that synthesises evidence on the efficacy of wellbeing interventions for practitioners of counselling to people in crisis. Thirteen included studies are summarised in a narrative synthesis, and the results of five studies of adequate quality are pooled to estimate effects on stress and burnout.

Chapter 5 – *Dream and Design phases:* presents the first documented development of an intervention for crisis supporters. A prototype online wellbeing program is co-designed and refined in collaboration with an Advisory Group (three meetings; n = 8). The prototype wellbeing intervention is described in detail and undergoes a preliminary evaluation of its acceptability, appropriateness, and feasibility.

Figure 1.1 Chapters of the thesis and their functions within the Appreciative Inquiry framework.



Chapter 2

Stressors, wellbeing, and coping in crisis supporters: A quantitative survey[1]

Abstract

Background: Crisis supporters can experience numerous stressors in their role that can impact their own wellbeing. The area remains underexplored in research, particularly relating to substance use, and new trends in the role such as working remotely or the impact of providing chat-based support. This study identifies stressors related to the role, as well as levels of wellbeing and substance use, and factors associated with wellbeing. *Method*: Participants (n = 422) were recruited from four leading crisis support services and via social media advertising. They responded to an online survey, assessing demographics, stressors, mental wellbeing (compassion fatigue, compassion satisfaction, and psychological distress), substance use, and coping styles. *Results*: Findings identified several important stressors (e.g., argumentative callers) and moderate to high rates of compassion fatigue and psychological distress. High levels of compassion satisfaction were reported, and levels of risky substance use were low. Problem-focused coping emerged as a key factor related to positive mental wellbeing, while emotion-focused, avoidant coping, remote work, and providing chat-based support were linked to negative wellbeing. *Conclusion* The findings reveal significant stressors and challenges of crisis support work that require consideration and intervention.

[1] A version of this chapter has been published as follows (**Appendix M**): Sercombe, J., Devine, E. K., Deady, M., & Mills, K. L. (2025). Holding the line—Mental well-being, stressors, and coping in crisis supporters. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 46*(1), 32–41. https://doi.org/10.1027/0227-5910/a000985

2.1 Introduction

Crisis lines play a vital role in suicide prevention globally (WHO, 2013) and rely on the dedicated work of crisis supporters, who provide technology-based support to help-seekers. Historically, these services have been provided over the telephone, but consistent with trends toward text-based communication increasingly they are increasingly administered over chat-based modalities (Batchelor et al., 2021). Often volunteers, crisis supporters may have specialised or limited training in non-directive counselling that aims to alleviate distress and promote problem-solving action in help-seekers (Gilmore et al., 2022; WHO, 2013)

This chapter is situated within the *Discover* phase of the Appreciative Inquiry framework guiding this thesis. This phase involves developing a rich understanding of a population and their context, including the challenges they face, as well as factors that support wellbeing (Trajkovski et al., 2013). In healthcare contexts, *Discover* is often used to document the current realities of a workforce, including risk and protective factors that contribute to positive outcomes (Dash & Bhatt, 2024). This quantitative investigation contributes to this phase by creating an evidence base on which the subsequent stages of Appreciative Inquiry can build.

A core part of the crisis supporter role is empathetic engagement with help-seekers experiencing loneliness or suicidality (Roche & Ogden, 2017). Crisis supporters may also hear vivid descriptions of trauma or be on the phone with a help-seeker who ends their life on the call (Vattøe et al., 2020; Willems et al., 2021). The wide accessibility of these services also presents several challenging caller profiles, including sex callers, who use the line for sexual gratification, as well as frequent callers, who may call many times a day (Pirkis et al., 2016).

However, prior research investigating stressors was primarily conducted before shifts in the crisis support work environment, including rapid rises in chat-based support and remote work practices (Gould et al., 2021; Willems et al., 2021). Emerging evidence suggests these developments may change stressors: chat-based services report high suicidal risk among help-seekers (Gould et al., 2021), potentially increasing exposure to trauma, and remote work has been linked to isolation in crisis supporters (Cooney & McCashin, 2023; Willems et al., 2021). Further research is needed to investigate stressors in the contemporary crisis support landscape, as they may have important implications for wellbeing.

Despite these demands, many crisis supporters have positive experiences and feel fulfilled by their role (Willems et al., 2020). This fulfillment can manifest as compassion satisfaction, and is a crucial factor for retention (Bride et al., 2007). Surprisingly, only a few studies have measured compassion satisfaction in crisis supporters, though they generally report high levels (Donnellan

et al., 2023; Lee-Cheong et al., 2025; Spafford et al., 2023). Compassion satisfaction has been linked with perceived levels of social support from other crisis supporters and loved ones (Donnellan et al., 2023; Spafford et al., 2023). However, further research is needed to understand compassion satisfaction and associated factors which may have important implications for positive experiences in the role, wellbeing, and retention.

In contrast, studies have reported that the demanding nature of the crisis supporter role can have negative effects on wellbeing (Kitchingman et al., 2018b; Willems et al., 2021). One example is compassion fatigue, considered highly relevant due to the role's frequent empathetic engagement with others. Evidence regarding its prevalence indicates a wide range of rates (<10–60% scoring high; Lee-Cheong et al., 2025; Spafford et al., 2023). This variability may reflect that all studies of compassion fatigue in crisis supporters have relied on the ProQOL, a measure that has been widely criticised for its psychometric properties (Donnellan et al., 2023; Hotchkiss & Wong, 2022; O'Sullivan & Whelan, 2011). Research using psychometrically robust measures is necessary for more accurate estimates of compassion fatigue in this workforce.

Research has also emphasised the importance of psychological distress among crisis supporters due to links with key occupational outcomes (Kitchingman et al., 2017; Willems et al., 2021). Kitchingman et al. (2017) found that Australian crisis supporters with higher distress reported functional impairment at work, which was associated with reduced fidelity to counselling protocols. Willems and colleagues (2021) reported that increased psychological distress was related to higher intention to leave the role. Although psychological distress may have relevance for the functionality of crisis lines, little attention has been given to the outcome in crisis supporter populations. All current research has been confined to single organisations, restricting the generalisability of findings to the broader crisis support workforce, which includes various occupational contexts (e.g., paid employees vs volunteers).

Certain demographic (e.g., age, gender, lived experience) and work-based factors (e.g., hours of work per week) may play a role in determining the likelihood or degree to which crisis supporters experience negative wellbeing outcomes. Younger Australian crisis supporters, compared to those who are older, report higher functional impairment and psychological distress (Kitchingman et al., 2017). Relating to lived experience, crisis supporters with a personal history of trauma report increased distress from their work (Dunkley & Whelan, 2006). In Chinese crisis supporters, years of experience were negatively correlated with burnout and secondary traumatic stress (L. Zhang et al., 2021). However, further research is needed to assist organisations in identifying factors associated with wellbeing among crisis supporters.

As discussed earlier, the impact of new trends in the sector on worker wellbeing is under-researched. Despite a rapid increase in the provision of chat-based crisis support, no research has been conducted investigating the differential impact of chat- and telephone-based modalities on crisis supporter wellbeing. Moreover, remote working is widespread among crisis supporters, who may partially or entirely work from home (Lifeline Australia, 2022; Willems et al., 2021). Only one quantitative study has investigated remote work practices, finding that volunteers at crisis lines who reported feeling isolated from working remotely had higher intention to leave their role (Willems et al., 2021). Overall, there is a clear lack of research investigating these contemporary factors. Further work is needed to determine how chat-based support and remote work affect crisis supporter wellbeing.

Coping styles likely play an important role in managing stressors related to crisis support work. Reflecting patterns in helping professions more broadly, research with crisis supporters suggests that problem-focused coping is associated with positive wellbeing, including higher compassion satisfaction and lower vicarious trauma (Dunkley & Whelan, 2006; Kaur, 2021). In contrast, avoidant coping has been linked to poorer wellbeing, specifically burnout and psychological distress (Kitchingman et al., 2017; Roche & Ogden, 2017). However, evidence remains sparse, particularly in relation to compassion fatigue, and additional research is needed to investigate associations of coping strategies with wellbeing.

Research conducted among helping professionals more broadly suggests that some individuals may engage in substance use to cope with the stressors and demands of these roles. For example, research has found that social workers, who also assist people in crisis, have higher rates of substance use than the general population (Kiepek et al., 2019; Warren et al., 2011). Risky substance use poses significant harm to individual wellbeing but also has the potential to impair job performance, and as such could jeopardise the quality of support provided through crisis lines (Thørrisen et al., 2019). However, despite its potential relevance to crisis supporters, no research has studied substance use in this specific population.

Taken together, despite the vital role that crisis supporters play in suicide prevention, their wellbeing remains underexplored, particularly considering the contemporary landscape. The present study seeks to address limitations of previous research by employing robust measures and a broad sampling strategy across multiple crisis lines. It is also the first to investigate substance use in the population and to compare the wellbeing of chat-based and telephone-based crisis supporters. It also adds to limited research on the role of demographic, work-based characteristics (including remote work), and coping strategies as correlates of wellbeing.

Specifically, in crisis supporters, the study aims to:

i) identify role and workplace stressors,
ii) investigate levels of wellbeing (including compassion satisfaction, compassion fatigue, and psychological distress) and substance use, and
iii) identify participant characteristics, including coping styles, associated with compassion satisfaction, compassion fatigue, and psychological distress.

2.2 Methods

2.2.1 Procedure and participants

An online survey was conducted using the platform Qualtrics between March and July 2023. Eligible participants were Australians aged 18 years or older and currently or recently (in the past 3 months) in a crisis supporter role. Participants were recruited through: (1) emails and newsletters distributed within four of the largest Australian crisis helpline providers and (2) social media advertising, which provided crisis supporters from other Australian crisis helplines the opportunity to participate in the study.

Using the Meta Ads Manager, users were targeted who had 'liked' or interacted with pages related to mental health or volunteering. This strategy complemented the sizable reach of the first recruitment channel by adding breadth, aiming to capture crisis supporters from a wide variety of Australian helplines. Due to differences in terminology across organisations, the terms telephone counsellor, online counsellor, and crisis supporter were used in various recruitment materials (see **Appendix A**). The research team collaborated with representatives from each of the four organisations, who reviewed the survey and provided recommendations before dissemination.

Ethical approval for this project was obtained from the University of Sydney Human Research Ethics Committee (protocol number: 2022/891). No identifying data were collected. In the event that participants felt distressed by the content of the survey, two support options were provided. Firstly, contact details for several crisis lines were provided at the footer of each page of the online survey. Secondly, as participants are a unique population who may work at one or more of the helplines typically provided for additional support, we provided a study contact email for additional support to individually refer participants. This email was monitored by a member of the research team.

2.2.2 Measures

The online survey included questions pertaining to demographic and work-based characteristics, stressors, wellbeing, substance use, and coping styles. The full survey can be found in **Appendix B**.

2.2.2.1 Demographic and work-based characteristics

Demographic questions included age, gender identity (male/female/any other), and rurality, as defined by the Australian Bureau of Statistics (ABS, 2022): major urban area (population of 100,000–1 million), other urban or country area (1,000–99,999), or small country or rural/remote area (<1,000). The survey also asked about lived experience of suicide. Specifically, participants could indicate whether they had lived experience of a) suicidal ideation, b) attempted suicide, c) lived experience through a loved one who had attempted or died by suicide, or d) no lived experience.

In terms of work-based characteristics, participants were asked whether they were primarily volunteer or paid, their average monthly shift hours, experience as a crisis supporter (<1 year/1–2 years/3–5 years/≥ 6 years), the primary modality they provided support (telephone or chat-based), proportion of hours of work they complete remotely (0–100%), and their training in counselling or mental health (aside from the training provided by their organisation).

2.2.2.2 Role stressors

Role stressors were derived from Willems et al.'s (2021) questionnaire of crisis support work demands. The researchers generated a list of 16 stressors (see **Appendix B** for the full list) by synthesising findings from a systematic review and a qualitative study, demonstrating excellent reliability (α = 0.88; Willems et al., 2020, 2021a, 2021b). Participants were asked to select all stressors that they felt had negatively affected their mental health or wellbeing.

In the current study, after consultation with Australian crisis support organisations, several items were changed to incorporate less stigmatising and gender-neutral language (i.e., "client complains and whines" updated to "client shares a lot of complaints with you", "client say he intends…" to "client says *they* intend"). Organisations also suggested the addition of two items, which were included: "client's story includes content that causes you a personal emotional reaction" and "client interaction ends in uncertainty".

2.2.2.3 Workplace stressors

Workplace stressors were derived from Harvey et al.'s (2017) meta-review, which identified features of the modern work environment that may contribute to the development of mental

disorders. This list included 16 stressors that were non-specific to crisis support work; for example: “shift work”, “long commute to work”, and “poor support from supervisors” (**Appendix B**). Participants were asked to indicate any stressors they perceived as impacting their mental health or wellbeing.

2.2.2.4 Compassion satisfaction and compassion fatigue

Compassion satisfaction and compassion fatigue were measured by the ProQOL-21 (Heritage et al., 2018), a modified version of the ProQOL (Stamm, 2010). The original ProQOL has been widely used but frequently criticised in recent literature due to inadequate psychometric properties (Cieslak et al., 2014; Geoffrion et al., 2019; Hemsworth et al., 2018). The measure contains three subscales: compassion satisfaction, secondary traumatic stress, and burnout. A meta-analysis of 27 studies analysing the ProQOL factor structure concluded that the compassion satisfaction construct is robust, but the secondary traumatic stress and burnout subscales are not independent and have a high degree of shared variance (Hotchkiss & Wong, 2022).

As recommended by the Hotchkiss and Wong (2022) review, the ProQOL-21 retained 21 of the original 30 items and demonstrated valid and reliable psychometric properties. The modified scale was developed using a Rasch modelling approach and improved the factor structure into two robust subscales: compassion satisfaction and compassion fatigue. High scores on the compassion satisfaction scale reflect increased contentedness with one’s role and the helping associated with the role. High scores on the compassion fatigue scale reflect feelings of hopelessness, stress, and being overwhelmed by one’s role. In this study, the compassion fatigue and compassion satisfaction subscales each had excellent internal consistency ($\alpha = .90$ and $\alpha = .92$, respectively).

2.2.2.5 Psychological distress

The Kessler Psychological Distress Scale (K10; Kessler et al., 2002) was used to measure non-specific psychological distress. The 10 items in the scale are phrased as “In the past 30 days, about how often did you feel…”, followed by a symptom (e.g., “nervous”, “worthless”). Respondents rate the frequency that they experienced each symptom on a 5-point Likert scale (1 = *none of the time*, 5 = *all of the time*). For the current study, the scoring categories recommended by Andrews and Slade (2001) were used, which are low (10–15), moderate (16–21), high (22-29), and very high (30–50). These cutoffs have been shown to accurately indicate the likelihood of DSM-IV diagnosed mental illness (Sunderland et al., 2011).

The K10 has been widely used internationally for measurement of psychological distress in U.S., Australian, and Canadian national surveys (Andrews & Slade, 2001; Caron & Liu, 2010; Kessler

et al., 2002). The development paper for the K10 reported excellent internal consistency with a Cronbach's alpha value of 0.92 (Kessler et al., 2002). The scale has been extensively validated, demonstrating good convergent validity with other measures of mental ill-health and robust properties as a screening tool for mood and anxiety disorders (Furukawa et al., 2003; Sampasa-Kanyinga et al., 2018). Similarly, the reliability of the K10 in this study was excellent (α = .92).

2.2.2.6 Substance use

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST; Humeniuk et al., 2008) was used to identify risky and disordered substance use. The measure was developed by the WHO and yields a risk score for each of 10 substance classes: tobacco, alcohol, cannabis, cocaine, amphetamines, inhalants, sedatives, hallucinogens, opioids, and other drugs. Each score is categorised into 'low risk' (≤10 for alcohol, ≤3 for other drugs), 'moderate risk' (11-26 for alcohol, 4-26 for other drugs), or 'high risk' (≥27 for alcohol and other drugs), relating to the risk to health and other harms due to the person's pattern of substance use over the past 3 months.

The ASSIST has been widely used and is accepted as a reliable and valid measure (Humeniuk et al., 2008; McNeely et al., 2014; Newcombe et al., 2005; Pautrat et al., 2022). The internal consistency for the three most used substance classes were α = .65 (alcohol), α = .80 (tobacco) and α = .92 (cannabis). For the other drug classes, Cronbach's alpha values ranged between 0.39 and 0.95.

2.2.2.7 Coping styles

Coping styles were assessed using the 28-item self-report measure Brief COPE (Carver, 1997). Participants rate how frequently they use different coping strategies (e.g., "I've been looking for something good in what is happening") on a 4-point Likert scale (1 = *I haven't been doing this at all*, 4 = *I've been doing this a lot*). The measure prompts participants to respond in reference to coping strategies used for "a hardship in your life". For the current study, participants were asked to answer about coping relating to stressful experiences from their crisis supporter role. The measure contains three subscales and demonstrates strong psychometric properties in other helping professionals, including doctors and nurses (Jamal et al., 2022; Zeladita-Huaman et al., 2024). The problem- (α = .89) and emotion-focused (α = .83) coping subscales displayed good internal consistency, while the avoidant coping subscale was on the margin of acceptable internal consistency (α = .69).

2.2.3 Data analysis

The data were analysed using R (version 4.2.1; R Core Team, 2023). The *Tidyverse* package (Wickham et al., 2019) was used to prepare the data for analysis, which involved calculating total scores for scales. For certain categorical variables, specifically geographic region and experience, categories with very low cell counts (n <5) were collapsed. Descriptive statistics were calculated to summarise all relevant variables. For categorical variables, the frequency and proportion of participants in each category was computed, while means and standard deviations were used to summarise normally distributed continuous variables.

A series of linear regression models, run using base R functions, were used to examine the association between the dependent variables of compassion satisfaction, compassion fatigue, and psychological distress and predetermined independent variables including gender, age, modality, shift hours, remote work proportion, employment status, experience, lived experience, and the three coping subscales. Univariate linear regression was first performed to establish the unadjusted associations between each independent variable and each dependent variable. Subsequently, three separate multivariate linear regression models were constructed, each with one of the main outcomes as the dependent variable. All independent variables were included as predictor variables to account for any confounding effects. The significance level for all analyses was set at $p < .05$. The R package *gtsummary* was used to create regression summary tables (Sjoberg et al., 2021).

2.3 Results

2.3.1 Demographic characteristics

Participants (n = 422) were predominantly female (82.5%) and 17.5% were male (Table 2.1). The age of respondents ranged from 20 to 86 years (M = 46.1, SD = 15.6). Most resided in major urban areas (80.9%). In terms of training in counselling or mental health, 38.9% had an undergraduate degree or diploma, 20.1% had a postgraduate degree, 9.0% were currently studying, 6.6% had another relevant qualification, and 25.4% had no other training (excluding that offered by their organisation). Over two-fifths (43.6%) of participants had lived experience through a loved one who had attempted or died by suicide. Forty percent had lived experience of suicidal ideation and 12.1% had attempted suicide. Over one in four (27.7%) did not have a lived experience of suicide.

2.3.2 Work-based characteristics

Participants conducted crisis support at 38 unique Australian crisis lines. Some lines focused on supporting the wider community with specific concerns, like loneliness or suicidality, whereas some targeted broader concerns or focused on certain populations like Indigenous Australians, LGBTQ+ people, or victims of relationship violence. However, participants were not evenly spread across crisis lines; most were from one of the four organisations which assisted with recruitment (organisation names and frequencies not disclosed to limit identifiability).

Participants primarily administered crisis support over telephone (78.0%), while 22.0% used chat-based modalities. Most volunteered in the role (59.2%) and 40.8% were paid for their crisis support work. Years of experience in the role was fairly evenly spread, with 23.9% having less than one year, 28.7% 1–2 years, 21.8% 3–5 years, and 25.6% over 6 years. Participants worked a mean of 40.5 monthly shift hours (*SD* = 45.0). Of these hours, a mean proportion of 33.5% (SD = 41.7) were spent working remotely.

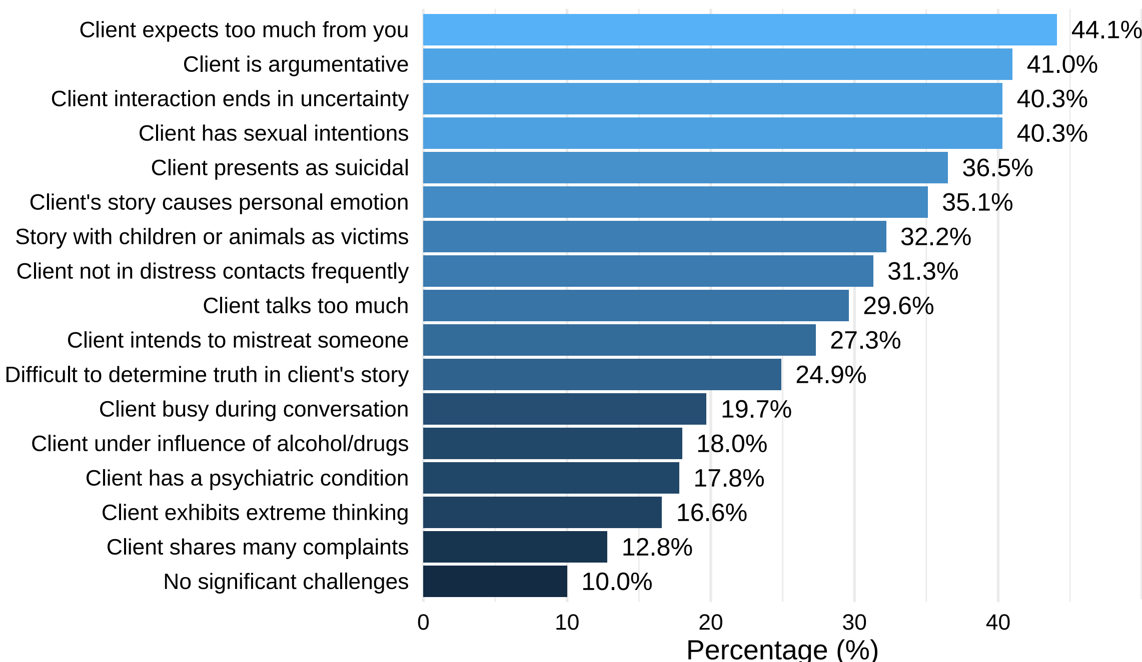
Table 2.1 Demographic and work-based characteristics of sample.

Characteristic	Descriptive statistics
Gender (*n* [%])	
Female	334 (82.5)
Male	71 (17.5)
Age (mean [*SD*])	46.1 (*15.6*)
Geographic region (*n* [%])	
Major urban area	338 (80.9)
Regional/rural/remote	84 (19.9)
Crisis supporter role status (*n* [%])	
Paid	172 (40.8)
Volunteer	250 (59.2)
Primary modality (*n* [%])	
Telephone	329 (78.0)
Chat	93 (22.0)
Experience as crisis supporter (*n* [%])	
Less than 1 year	101 (23.9)
1–2 years	121 (28.7)
3–5 years	92 (21.8)
6 years or more	108 (25.6)
Remote work proportion (mean % [*SD*])	33.5 (41.7*)*
Hours per month (mean [*SD*])	40.5 *(45)*
Highest level of training in counselling or mental health (*n* [%])	
No training (other than from organisation)	107 (25.4)
Other relevant qualification	28 (6.6)
Currently studying	38 (9.0)
Undergraduate degree or diploma	164 (38.9)
Postgraduate degree	85 (20.1)

2.3.3 Role and workplace stressors

Figure 2.1 shows the proportion of participants who reported that each role stressor had a negative impact on their mental health or wellbeing. The highest endorsed items were '*client expects too much from you that you cannot provide as part of your role*' (44.1%), '*client is argumentative*' (41.0%) and '*client has sexual intentions with the conversation*' and '*client interaction ends in uncertainty'* (both 40.3%). One in ten (10.0%) participants indicated that they had no significant challenges in the role that negatively affected their mental health or wellbeing.

Figure 2.1 Proportion of participants reporting that specific role stressors negatively affected their wellbeing.



In terms of workplace stressors, 54.7% of respondents indicated that '*trauma exposure (e.g., suicide)*' had negative impacts on their wellbeing. This was followed by '*high job demands'* (32.0%), '*shift work'* (28.2%), '*lack of reward/recognition'* (19.2%), and '*poor support from supervisors'* (16.4%). Just under one in four participants (23.2%) reported they did not feel negatively impacted by workplace stressors. See Figure 2.2 for the full results.

Figure 2.2 Proportion of participants reporting that specific workplace stressors negatively affected their wellbeing.

2.3.4 Levels of wellbeing, substance use, and coping

The mean compassion satisfaction score was 26.1 (*SD* = 5.8), with 19.9% of participants exhibiting low levels, 47.6% moderate levels and 32.5% experiencing high levels. Regarding compassion fatigue, the mean score was 19.7 (*SD* = 6.6) and 30.6% reported low levels, 49.3% moderate levels, and 20.1% high levels. In terms of psychological distress, the mean K10 score was 18.6 (*SD* = 7.5): 44.2% scored low, 25.5% scored moderate, 20.2% scored high, and 10.3% scored very high.

The substances with the highest prevalence of lifetime use were alcohol (89.1%), cannabis (49.8%), followed by amphetamines and sedatives (both 24.0%). The least commonly used substance classes were 'other' (2.5%), opioids (10.4%), and inhalants (11.9%). Relating to the past 3 months, the highest prevalence of moderate risk use was for alcohol (17.3%), sedatives (7.7%), and cannabis (7.2%). Less than 0.5% of the sample reported high risk use of alcohol, cannabis, and 'other' substances over the past 3 months, and no participants reported high risk in all other categories. See Table 2.2 for the full results.

Table 2.2 Substance use scores and risk categories.

Substance class	ASSIST score[1]	Abstinent	Low risk	Moderate risk	High risk
	mean (SD)	n (%)	n (%)	n (%)	n (%)
Alcohol	6.9 (5.6)	44 (10.9%)	288 (71.3%)	70 (17.3%)	2 (0.5%)
Cannabis	2.1 (4.8)	203 (50.2%)	170 (42.1%)	29 (7.2%)	2 (0.5%)
Cocaine	0.9 (2.1)	324 (80.2%)	74 (18.3%)	6 (1.5%)	0 (0.0%)
Amphetamines	1.1 (2.2)	307 (76.0%)	87 (21.5%)	10 (2.5%)	0 (0.0%)
Inhalants	0.9 (3.0)	356 (88.1%)	45 (11.1%)	3 (0.7%)	0 (0.0%)
Sedatives	3.2 (4.9)	307 (76.0%)	66 (16.3%)	31 (7.7%)	0 (0.0%)
Hallucinogens	0.6 (1.5)	329 (81.4%)	71 (17.6%)	4 (1.0%)	0 (0.0%)
Opioids	1.9 (3.3)	362 (89.6%)	35 (8.7%)	7 (1.7%)	0 (0.0%)
Other	6.6 (9.4)	394 (97.5%)	5 (1.2%)	4 (1.0%)	1 (0.2%)

Note: SD = standard deviation. [1]ASSIST score among users of each substance

In terms of coping strategies, emotion-focused coping had the highest mean score (M = 22.7, SD = 6.3). This was followed by problem-focused coping, with a mean score of 17.3 (SD = 5.8) and avoidant coping, with a mean of 11.2 (SD = 2.8).

2.3.5 Factors associated with wellbeing

2.3.5.1 Compassion satisfaction

In univariate regression analyses, age, modality, remote work, emotion-focused coping and avoidant coping were independently associated with compassion satisfaction (*p's* < .05; the full results can be seen in Table 2.3). Of these variables, when all participant characteristics were included in a multivariate model, emotion-focused coping (β = -0.18, 95% CI [-0.33, -0.03], *p* = 0.017) and avoidant coping (β = -0.74, 95% CI [-1.00, -0.48], *p* < 0.001) retained significant negative associations. In other words, as reported use of emotion-focused and avoidant coping increased, compassion satisfaction scores decreased.

While not significant in univariate analysis, problem-focused coping demonstrated a significant positive association (β = 0.34, 95% CI [0.19, 0.49], *p* < 0.001) with compassion satisfaction in the multivariate model controlling for participant characteristics. Specifically, as problem-focused coping increased, compassion satisfaction scores also increased.

Table 2.3 Univariate and multivariate regression results showing the associations between crisis supporter characteristics and compassion satisfaction

Characteristic	Compassion satisfaction			
	Univariate regression		Multivariate regression	
	Beta [95% CI][1]	p-value	Beta [95% CI][1]	p-value
Age	0.07 [0.04, 0.11]	<.001	0.04 [0.00, 0.08]	.065
Gender				
Female	—		—	
Male	0.63 [-0.82, 2.10]	.394	0.54 [-0.89, 1.97]	.458
Modality				
Telephone	—		—	
Chat	-1.92 [-3.24, -0.60]	.004	-1.51 [-3.25, 0.22]	.087
Shift hours	-0.01 [-0.02, 0.01]	.394	0.00 [-0.02, 0.02]	.901
Remote work	-0.02 [-0.03, 0.00]	.021	0.00 [-0.02, 0.02]	.903
Employment status				.158
Paid	—		—	
Volunteer	0.43 [-0.69, 1.55]	.455	-1.22 [-2.91, 0.48]	
Experience		.102		.39
1 year or less	—		—	
1-2 years	0.59 [-0.92, 2.1]	.442	0.46 [-1.02, 1.95]	.540
3-5 years	0.41 [-1.2, 2.0]	.621	-0.74 [-2.37, 0.89]	.375
6 years or more	1.9 [0.31, 3.42]	.019	0.45 [-1.21, 2.10]	.597
Lived experience				
Yes	—		—	
No	0.29 (-0.92 to 1.51)	.636	-0.94 [-2.11, 0.24]	.117
Problem-focused coping	-0.03 [-0.13, 0.06]	.477	0.34 [0.19, 0.49]	<.001
Emotion-focused coping	-0.15 [-0.23, -0.06]	<.001	-0.18 [-0.33, -0.03]	.017
Avoidant coping	-0.56 [-0.75, -0.37]	<.001	-0.74 [-1.00, -0.48]	<.001

2.3.5.2 Compassion fatigue

Univariate analyses showed that all participant characteristics were independently associated with compassion fatigue (*p*'s < .05; for detailed regression results, refer to Table 2.4). After including all participant characteristics in a multivariate linear regression model, gender, remote work, experience, and the coping style subscales remained statistically significant. Age, modality, shift hours, and lived experience were no longer statistically significantly associated with compassion fatigue in the full model.

In terms of gender, males reported lower compassion fatigue than females (β = -2.12, 95% CI [-3.42, -0.83], *p* < 0.001). Remote work exhibited a significant positive association with compassion fatigue (β = 0.02, 95% CI [0.00, 0.04], *p* = 0.02), indicating that increased remote work in the crisis supporter role was linked to higher levels of compassion fatigue. Regarding experience in the role (*p* = .008), those with 3–5 years (β = 2.53, 95% CI [1.05, 4.02], *p* = .001), and ≥6 years (β = 1.84, 95% CI [0.33, 3.35], *p* = .017) had higher compassion fatigue compared to those with ≤1 year. Regarding coping styles, problem-focused coping had a significant

negative relationship with compassion fatigue (β = -0.14, 95% CI [-0.28, -0.01], $p = 0.042$). Conversely, emotion-focused coping (β = 0.29, 95% CI [0.16, 0.43], $p < 0.001$) and avoidant coping (β = 1.04, 95% CI [0.81, 1.28], $p < .001$) were associated with higher compassion fatigue.

Table 2.4 Univariate and multivariate regression results showing the associations between crisis supporter characteristics and compassion fatigue

Characteristic	Compassion fatigue			
	Univariate regression		Multivariate regression	
	Beta [95% CI][1]	p-value	Beta [95% CI][1]	p-value
Age	-0.14 [-0.18, -0.10]	<.001	-0.03 [-0.07, 0.01]	.155
Gender				
Female	—		—	
Male	-2.98 [-4.61, -1.36]	<.001	-2.12 [-3.42, -0.83]	.001
Modality				
Telephone	—	<.001	—	
Chat	2.75 [1.25, 4.24]		0.47 [-1.11, 2.05]	.557
Shift hours	0.04 [0.03, 0.06]	<.001	0.01 [-0.01, 0.02]	.524
Remote work	0.04 [0.03, 0.06]	<.001	0.02 [0.00, 0.04]	.021
Employment status				
Paid	—		—	
Volunteer	-4.44 [-5.64, -3.23]	<.001	-0.29 [-1.83, 1.25]	.711
Experience		.006		.008
1 year or less	—		—	
1-2 years	2.04 [0.32, 3.76]	.002	1.19 [-0.16, 2.53]	.085
3-5 years	2.29 [0.46, 4.13]	.015	2.53 [1.05, 4.02]	.001
6 years or more	-0.12 [-1.88, 1.65]	.897	1.84 [0.33, 3.35]	.017
Lived experience				
Yes	—		—	
No	-3.30 (-4.70, -1.90)	<.001	-0.91 [-1.98, 0.16]	.094
Problem-focused coping	0.48 [0.38, 0.58]	<.001	-0.14 [-0.28, -0.01]	.042
Emotion-focused coping	0.56 [0.47, 0.64]	<.001	0.29 [0.16, 0.43]	<.001
Avoidant coping	1.45 [1.26, 1.63]	<.001	1.04 [0.81, 1.28]	<.001

2.3.5.3 Psychological distress

In univariate analyses, all participant characteristics except for gender were independently associated with psychological distress (*p*'s < .05). Although significant in the univariate analyses, shift hours, remote work, employment status, and experience no longer demonstrated significant associations in the multivariate analysis. The full regression results are presented in Table 2.5.

Age remained significantly negatively associated with psychological distress (β = -0.11, 95% CI [-0.16, -0.07], $p < .001$), where increased age was related to lower psychological distress. Providing crisis support over chat remained related to higher psychological distress (β = 1.91,

95% CI [0.08, 3.73], $p = .041$) compared to telephone support. Lived experience remained significantly associated, where participants without lived experience reported lower psychological distress (β = -2.15, 95% CI [-3.39, -0.91], $p < .001$). Problem-focused coping (β = -0.23, 95% CI [-0.39, -0.07], $p = .004$) showed a significant negative association with psychological distress in the multivariate model, in contrast to its positive association in the univariate model. Emotion-focused coping (β = 0.34, 95% CI [0.18, 0.50], $p < .001$) and avoidant coping (β = 1.13, 95% CI [0.85, 1.40], $p < .001$) retained their significant positive associations with psychological distress.

Table 2.5 Univariate and multivariate regression results showing the associations between crisis supporter characteristics and psychological distress

Characteristic	Psychological distress			
	Univariate regression		Multivariate regression	
	Beta [95% CI][1]	p-value	Beta [95% CI][1]	p-value
Age	-0.22 [-0.27, -0.18]	<.001	-0.11 [-0.16, -0.07]	<.001
Gender				
Female	—		—	
Male	-1.73 [-3.70, 0.24]	.084	-0.24 [-1.74, 1.27]	.756
Modality				
Telephone	—		—	
Chat	3.59 [1.86, 5.32]	<.001	1.91 [0.08, 3.73]	.041
Shift hours	0.04 [0.02, 0.05]	<.001	0.00 [-0.02, 0.02]	.879
Remote work	0.04 [0.02, 0.05]	<.001	0.00 [-0.02, 0.02]	.837
Employment status				
Paid	—		—	
Volunteer	-3.84 [-5.28, -2.40]	<.001	-0.12 [-1.91, 1.67]	.899
Experience		<.001		.702
1 year or less	—		—	
1-2 years	1.31 [-0.67, 3.29]	.442	-0.12 [-1.68, 1.45]	.883
3-5 years	0.44 [-1.70, 2.58]	.621	0.70 [-1.02, 2.42]	.425
6 years or more	-2.56 [-4.60, -0.53]	.019	0.61 [-1,14, 2.42]	.495
Lived experience				
Yes	—		—	
No	-4.74 (-6.31, -3.17)	<.001	-2.15 [-3.39, -0.91]	<.001
Problem-focused coping	0.50 [0.39, 0.62]	<.001	-0.23 [-0.39, -0.07]	.004
Emotion-focused coping	0.63 [0.53, 0.72]	<.001	0.34 [0.18, 0.50]	<.001
Avoidant coping	1.62 [1.42, 1.83]	<.001	1.13 [0.85, 1.40]	<.001

2.4 Discussion

The present study contributes to the understudied field of crisis supporter wellbeing. This is the first study to compare the wellbeing of chat-based and telephone-based crisis supporters, investigate substance use in the population, and identify stressors within the Australian helpline context. It also adds to limited research reporting the associations of key factors with wellbeing, including the provision of support remotely and over chat, and coping strategies.

The demographic profile of the current sample was broadly consistent with Kitchingman et al.'s (2018c) sample. Kitchingman and colleagues state that a service director advised that their sample was representative of crisis supporters at Lifeline Australia. Both samples were mostly female (78.1% in Kitchingman's study vs. 82.5% in the present study), of similar age (M = 49.1 vs. 46.1 years), and primarily based in metropolitan areas (60.5% vs. 80.9%). Educational attainment and role experience were both comparable, with approximately 60% in each sample holding a university degree and having two-years or less experience in the role (60.5% vs. 52.6%).

Of note, whereas Kitchingman's sample were telephone crisis supporters working from Lifeline offices, the present study recruited across 38 helplines and included both telephone- and chat-based crisis supporters, who on average worked one-third of their hours remotely. These characteristics suggest that, while comparable to this earlier representative sample, the current study captured a more diverse and contemporary cross-section of the workforce.

2.4.1 Stressors

The first aim of this study was to identify stressors. The most endorsed stressor related to crisis support work was help-seekers expecting more than the crisis supporter role can provide. This is in line with qualitative research that has identified that some help-seekers contact crisis lines for support with complex mental illness, in place of consulting healthcare professionals (Vattøe et al., 2020). The limitations of the crisis supporter role, for example, its focus on validation and non-directiveness, can result in frustration or feelings of powerlessness in crisis support workers (Vattøe et al., 2020; Yanay & Yanay, 2008). Having realistic and clear expectations about their role can help crisis supporters to manage this stressor (Vattøe et al. 2020).

The next two most highly endorsed stressors were related to argumentative callers and sexually motivated callers, respectively. Crisis lines are highly accessible and as such, their misuse has been widely documented (Pollock et al., 2012; Willems et al., 2021). Sex calls have been observed to evoke intense frustration in crisis supporters, who can feel betrayed and demoralised (Pollock et al., 2012). This is a complex issue, and although helplines often have no tolerance policies for these callers (e.g., Lifeline Australia, 2025), organisations should explore further methods of protecting their employees and volunteers from abuse. As recommended by Pirkis et al. (2016), addressing challenging caller profiles by redirecting them to experienced crisis supporters with specialised training may be beneficial.

Just over one in three crisis supporters reported that they had personal emotional reactions (or were 'triggered') in response to content in help-seekers' stories. A large proportion of the

sample had a lived experience of suicide, with two in five crisis supporters having experienced suicidal thoughts, and one in ten had attempted suicide. Multivariate analyses demonstrated that a lived experience of suicide was significantly associated with psychological distress, but not to compassion fatigue or satisfaction. More research needs to be conducted to determine whether having a specific lived experience of suicide, and therefore perhaps being more vulnerable to triggers, leads to poorer wellbeing among crisis supporters. However, it is a known motivator for volunteering for crisis lines and those with lived experience are a crucial contingent of the workforce (Mishara & Giroux, 1993; Sundram et al., 2018). As such, supporting crisis supporters with lived experience should be a key focus for future research and organisational efforts.

The study also investigated stressors related to the workplace more broadly. Across all stressors, trauma exposure was the highest endorsed item, consistent with evidence that repeated exposure to traumatic content, including suicidality, negatively impacts wellbeing (Rauvola et al., 2019; Vattøe et al., 2020). Another highly endorsed workplace stressor was high job demands, which in broader literature refers to workload and time pressure (Harvey et al., 2017). In crisis supporters, this likely reflects pressures of high call volumes, expected targets for calls per hour, or other sources of stress inherent to the role. Lastly, a significant proportion of crisis supporters indicated that shift work was a stressor. This is unsurprising, as shift work is associated with numerous adverse outcomes in other working populations, including fatigue and social isolation (Moreno et al., 2019).

2.4.2 Levels of wellbeing and substance use

Rates of compassion satisfaction were high, with four in five crisis supporters reporting moderate-high levels. In volunteers, feelings of reward may compensate for role-related distress and is likely to be a key motivator for people to stay in their role (Willems et al., 2020). As a large proportion of crisis supporters worldwide are volunteers, high levels of compassion satisfaction may arguably be more important than in other caring roles where there is also a financial imperative to continue (WHO, 2013). The high rates of compassion satisfaction of the current sample are consistent with this theory.

Most crisis supporters reported low to moderate compassion fatigue. However, around one in five fell into the high compassion fatigue category. There is limited data with which to compare this finding, though it is higher than previously reported rates among crisis supporters in the U.S. where over 80% scored low levels (Spafford et al., 2023). However, compassion fatigue was measured differently in these studies and conceptualised as a combination of burnout and secondary traumatic stress.

Rates of high or very high levels of psychological distress were high relative to the general population (30.5% vs. 10%; Sunderland et al., 2011) but commensurate with those of other helping professionals (Petrie et al., 2018). Further, these levels of psychological distress are unsurprising as a large proportion of the sample had a lived experience of suicide (40% had experienced suicidal thoughts, 12.1% had attempted suicide). Given that psychological distress can also impair an individual's crisis counselling skills (Kitchingman et al., 2017), this underscores the importance of supporting crisis workers in their role. The distress levels of crisis supporters are not only crucial for their own health but can also impact the quality of crisis helplines and have wide-reaching impacts on communities.

Levels of risky substance use varied greatly based on substance class. A minority of the sample was engaging in risky substance use, with alcohol, sedatives, and cannabis the highest drugs of concern. Rates of moderate- to high-risk alcohol use (17.8%) were similar, albeit slightly lower than those in the Australian population (22.2%; O'Brien et al., 2020). Among the other categories of substance use, moderate- to high-risk use was reported at a lower rate, with the highest prevalence for cannabis and sedatives (both 7.7%). While directly comparable rates are not available, this exceeds the estimated 12-month prevalence of drug use disorder in the Australian general population (3.3%; ABS, 2023b).

Contextualising these findings, risky substance use is often used as a coping strategy by helping professionals who encounter traumatic material as part of their job (Cohen & Collens, 2013; Patel et al., 2023). As the first study to investigate substance use in crisis supporters, this study used an exploratory approach. Future work should look to establish relationships between crisis support work and substance use, ideally using longitudinal methods to further understand these relationships.

2.4.3 Factors associated with wellbeing

Controlling for other factors, female gender, remote work and experience in role were associated with increased compassion fatigue. Contrastingly, conducting crisis support over chat and younger age were associated with higher psychological distress.

In terms of demographic characteristics, the finding that females had higher compassion fatigue is consistent with research on nurses (Mooney et al., 2017). Notably, gender showed no association with psychological distress, consistent with findings of Kitchingman et al. (2017). These findings suggest that females may be more susceptible to the toll of empathetic engagement, manifesting in compassion fatigue, but that this may not then lead to psychological distress. Moreover, in line with Kitchingman et al., (2017), younger crisis supporters were more

at-risk of experiencing psychological distress. However, this finding may be unrelated to the role, but rather a reflection of differences in reporting in younger cohorts, as young people have higher rates of mental ill-health in population-wide surveys (Slade et al., 2025; Teesson et al., 2025).

Interestingly, crisis supporters with more experience in the role had higher compassion fatigue scores, contrasting with previous research that found that more experienced crisis supporters experienced lower distress (Mishara & Giroux, 1993). Compared to those with 1 year of experience or less, compassion fatigue appeared to peak for those with 3–5 years' experience, and while still elevated for those with 6 years' experience or more, it appeared to drop off. It may be that crisis supporters with a tenure of over 5 years report lower compassion fatigue, as those experiencing higher levels may have left the role. Taken together, organisations should take particular care in supporting crisis supporters who are female, younger, or with a moderate amount of experience in the role, as they may be more at risk of adverse outcomes.

In the current study, on average, crisis supporters worked remotely one-third of the time, and an increased proportion of time spent working remotely was associated with poorer compassion fatigue. Potential effects of remote work or hybrid work practices are multifaceted. Isolation is a significant concern, as crisis supporters may experience a sense of detachment from their colleagues and the broader support network typically available in a traditional setting. The absence of face-to-face interactions can limit opportunities for supervisory support or informal debriefing (Button et al., 2023). The results of this study contrast with that of Willems et al.'s (2021) study, who did not find that proportion of time working remotely was associated with distress or intention to leave. However, the researchers did find that reported feelings of isolation due to remote work were associated with distress and intention to leave. These mixed findings are reflected in the current study as remote work was not associated with compassion satisfaction or psychological distress in multivariate models.

While remote work adds flexibility to working arrangements, crisis helpline organisations should consider impacts on employee and volunteer wellbeing, particularly those who are completely remote (18.5% of this sample, of which 69.2% were chat-based crisis supporters). Strategies to mitigate the potential negative effects of remote work, such as promoting virtual team-building activities and peer support (for example Snyder et al., 2023), as well as providing regular opportunities for debriefing and supervision (Furlonger & Taylor, 2013), may prove essential in maintaining the mental health of those feeling isolated.

Another notable finding was that chat-based crisis supporters had higher psychological distress than those providing support over telephone. Compared to telephone crisis lines, chat-based

lines have been shown to have higher rates of help-seekers experiencing suicidality (Mokkenstorm et al., 2017; Netbalance, 2014). As such, chat-based supporters may have higher exposure to traumatic material, resulting higher levels of distress. Chat-based crisis support is a rapidly growing field (Batchelor et al., 2021) and these findings emphasise a need for further research and organisational efforts to understand and address the unique challenges faced by chat-based crisis supporters.

Regarding coping styles, higher problem-focused coping was linked to positive wellbeing, replicating past findings in crisis supporter research (Dunkley & Whelan, 2006; Kitchingman et al., 2018a). Conversely, it was found that emotion-focused coping and avoidant coping were associated with poorer wellbeing, which is consistent with research from Kitchingman and colleagues (2018a) and corroborates Roche and Ogden's (2017) findings that avoidant coping was related to burnout in crisis supporters. Like other demanding roles in the helping professions (Ewer et al., 2015; Owens-King, 2019), coping strategies are likely important in managing stressors inherent to providing crisis support. In relation to the Appreciative Inquiry framework, problem-focused coping may represent an important existing strength that can be drawn upon in this population.

To utilise existing coping-related strengths, training and interventions at crisis support organisations should encourage problem-focused coping strategies to manage stressors. Qualitative research has identified several coping strategies perceived by crisis supporters as productive, for example: having realistic expectations, focusing on meaning and growth, maintaining personal boundaries, seeking supervisor feedback, or venting with coworkers (Cyr & Dowrick, 1991; Vattøe et al., 2020). On the other hand, avoidant coping strategies used by crisis supporters should be dissuaded in training and interventions, such as denial, ignoring distress resultant of the role (Dunkley & Whelan, 2006), engaging in substance use, or distraction (Carver, 1997).

2.4.4 Strengths

This study had several strengths. Firstly, while most studies in the field sample from a single organisation (e.g., Willems et al., 2021), participants in this study were drawn from 38 Australian crisis lines, increasing the generalisability of findings. Secondly, anonymity was prioritised and the researchers were independent of participants' organisations, factors that increase the validity of self-reported symptoms, particularly for stigmatised issues such as substance use (Haugen et al., 2017; Marshall et al., 2021). Thirdly, the sample characteristics closely resembled those of previous research purported to be representative of crisis supporter populations (Kitchingman et al., 2018c). Finally, compared to prior work that relied on

univariate analyses (e.g., Dunkley & Whelan, 2006; Spafford et al., 2023), this study used multivariate regression models that accounted for demographic and role-related characteristics to build a more robust picture of factors associated with wellbeing..

2.4.5 Limitations

There are limitations of this study that must be acknowledged. The convenience sample shared characteristics with previous research (Kitchingman et al., 2018c), but it cannot be established whether participants were representative of the broader crisis support population. Another limitation is the cross-sectional nature of the data. While the study was able to identify associations between variables, the results do not imply causality. For example, it is unclear whether avoidant coping causes mental ill-health, or if those with mental ill-health rely more on avoidant coping.

2.4.6 Conclusion

In summary, this study conducted a robust cross-sectional investigation of the current state of crisis supporter wellbeing. It is the first to examine substance use in this population and to compare wellbeing between chat- and telephone-based crisis supporters. While most participants had high levels of compassion satisfaction, numerous stressors were identified as negatively affecting wellbeing, and a notable subset of crisis supporters reported high levels of compassion fatigue and psychological distress.

Given the pivotal role that paid and volunteer crisis supporters play in suicide prevention and frontline mental health care, the results hold critical implications for organisational policy and broader public health. They emphasise the need to address wellbeing-related challenges faced by crisis supporters, to support their wellbeing and the sustainability of crisis lines. Despite this, a scarcity of information exists relating to the promotion of crisis supporter wellbeing. In addition to the quantitative insights gained in this chapter that contributed to the *Discovery* phase of Appreciative Inquiry, the development of interventions should be informed by an in-depth understanding of the lived experiences and working environment of crisis supporters.

Chapter 3

Stressors, coping, and support needs: A qualitative study

Abstract

Abstract: *Background***:** While quantitative research finds that crisis supporters experience significant stressors that may impact their wellbeing, less is known about the lived experience of these challenges and how individuals cope. This study sought to explore crisis supporters' experiences of stressors, their perceived impacts on wellbeing, coping strategies, and preferences for wellbeing support. *Method*: Fifteen Australian crisis supporters, drawn from survey respondents in Chapter 2, participated in semi-structured interviews. Data were analysed using reflexive thematic analysis. *Results*: Six primary themes were identified: (1) finding satisfaction in helping others, (2) sources of stress in the role, (3) costs of caring, (4) coping with the work, (5) navigating a changed landscape, and (6) support preferences of crisis supporters. Participants described altruism, connection, and personal growth as rewarding but reported stress from challenging caller profiles, organisational pressures, and uncertainty. They also report experiences of empathy-based stress and functional impairment resulting from their work. Coping strategies included both adaptive and maladaptive approaches, and participants discussed the challenges of a changing working landscape. They expressed varied preferences for wellbeing support but emphasised the importance of connection with peers and psychoeducation about empathy-based stress. *Conclusion:* Findings provide nuanced insight into the stressors and coping mechanisms of crisis supporters and highlight key directions for developing tailored, acceptable wellbeing interventions.

3.1 Introduction

In the preceding chapter, a cross-sectional survey identified distinct stressors experienced by those in the role, the top three of which were trauma exposure, high expectations from callers, and abusive callers. It uncovered high rates of compassion satisfaction (32.5% scoring high) among crisis supporters, moderate rates of compassion fatigue (20.1% scoring high) and high psychological distress (30.5% scoring high–very high). It also provided evidence that coping strategies were related to these wellbeing outcomes in expected ways, and as such may play a role in exacerbating or mitigating the effect of stressors.

However, while the survey presented in **Chapter 2** provided critical quantitative insights into crisis supporter wellbeing at a population level, which have been lacking to date in the literature, it did not capture nuances in the lived experience of those working or volunteering on a crisis line, who support strangers experiencing emotional difficulties and suicidality. Qualitative research methods allow for a more in-depth exploration of personal perspectives and experience. They can provide insight into mechanisms that are difficult to operationalise quantitatively and generate rich, detailed data.

Within this chapter, qualitative methods will be used to obtain a deeper understanding of key phenomena relevant to the crisis supporter experience, including motivation for volunteering and the impact of stressors. Further, qualitative methods will be used to collect detailed accounts of coping strategies and how crisis supporters feel they could be better supported.

Several qualitative studies have been conducted that investigate the experience of crisis line work (Aguirre & Bolton, 2013; Kitchingman et al., 2024; Pollock et al., 2012; Sundram et al., 2018; Vattøe et al., 2020; Yanay & Yanay, 2008). Three studies have focused on motivations for the work, which included altruism, personal skill development, and using past lived experience to help others (Aguirre & Bolton, 2013; Sundram et al., 2018; Yanay & Yanay, 2008) but did not examine crisis supporter wellbeing or other aspects of the role.

Other qualitative studies had a broader scope, investigating stressors, wellbeing, and coping (Cooney & McCashin, 2023; Kitchingman et al., 2024; Vattøe et al., 2020). Vattøe et al. (2020) explored stressors in Norwegian crisis line volunteers at a religious organisation. Challenges included exposure to trauma, feeling unable to actively intervene to assist help-seekers, and concerns about representing the church. Moreover, Kitchingman and colleagues (2024) focused on impacts on functioning, finding that Australian crisis supporters reported symptoms of anxiety, compassion fatigue, and traumatic stress, but little evidence of functional impairment. Some participants suggested that additional training for challenging caller profiles and more

robust supervision structures would be helpful. Both studies emphasised the importance of certain coping strategies in supporting wellbeing, including the maintenance of boundaries between themselves and callers, participating in debriefing, and group supervision. While valuable, both studies collected data in 2016 or earlier (Kitchingman et al., 2024; Vattøe et al., 2019) and as such, did not capture features of the contemporary crisis support landscape.

One such feature is remote work. More recently, an Irish study (Cooney & McCashin, 2023) investigated impacts of the COVID-19 pandemic on volunteer crisis supporters, a time where working remotely became the norm. Positively, the role was described as providing a sense of purpose during lockdown. However, volunteers noted increased feelings of isolation from new remote work protocols and heightened vulnerability to common stressors such as abusive callers. Taken alongside the survey findings from **Chapter 2,** which indicated that remote work was associated with increased compassion fatigue, the impact of remote work warrants further examination. Findings may have important implications for how organisations support remote workers and develop policies to mitigate associated risks.

Another development in the crisis support landscape is the widespread growth of chat-based services. As discussed in **Chapter 1**, evidence shows that chat-based supporters may experience the role differently to phone-based supporters, encountering over three times the proportion of help-seekers reporting current or recent suicidality (Gould et al., 2013, 2021). Reflecting this, **Chapter 2** found that providing chat-based support was associated with significantly greater psychological distress. Despite these findings, no qualitative studies have investigated the wellbeing of workers who provide support over this modality.

Efforts to improve the wellbeing of a population should be guided by a clear understanding of their context and needs. While this thesis has focused on the *Discover* phase of the Appreciative Inquiry up to this point, part of this study addresses the *Dream* phase which aims to determine what end-users perceive as 'ideal' support strategies. Seeking worker perspectives to inform intervention design has been implemented in several other helping professions, including paramedics (Cogan et al., 2025; Donnelly et al., 2016), and health and social care workers (Billings et al., 2020). As discussed in **Chapter 1**, such approaches can improve the acceptability and feasibility of interventions (Brotherdale et al., 2024; Slattery et al., 2020). While Kitchingman et al.'s (2024) study offered early insights from crisis supporters, namely the improvement of existing support structures, no study has conducted an in-depth exploration of their support preferences.

In summary, while existing qualitative research has provided important insights into crisis supporter motivations, stressors, wellbeing, and coping, there remain notable gaps. Little is

known about experiences in the contemporary crisis support environment, where paid and volunteer workers may face changed stressors and use altered coping methods where remote work and chat-based delivery is increasingly prevalent. Moreover, no study to date has asked crisis supporters about their preferences for receiving wellbeing support. Addressing these gaps is important to inform current efforts to improve crisis supporter wellbeing.

Therefore, this study aims to use semi-structured interviews to:

i) explore current experiences of the crisis supporter role, including motivations, stressors, wellbeing, and coping strategies; and
ii) investigate crisis supporters' perceptions of current support systems and their ideal forms of wellbeing support.

3.2 Method

3.2.1 Design

Semi-structured interviews were used to explore the experiences and perceptions of support within the crisis supporter role with a qualitative study design. Reflexive thematic analysis was the methodology chosen to interpret data, which is expanded upon in subsection 3.2.4.

3.2.2 Recruitment

The sample for this study was a subset of the respondents to the survey conducted in Chapter 1, who were Australian adults who currently or recently (with the past 3 months) worked or volunteered as crisis supporters. At the end of the survey, respondents were asked if they would be willing to take part in an additional interview at a later point.

Of the 422 survey respondents, 80 indicated interest in completing an interview. Fifteen participants were randomly selected from this group using an online random sampling tool, where deidentified participant identifiers were entered (https://randraw.com/draw-with-many-participants). These participants were then invited via email to schedule an interview.

After one individual did not respond within two weeks, another participant was randomly chosen and contacted using the same procedure as above. In total, 15 participants completed an interview. Sample size considerations were guided both by Braun and Clarke's (2013) guide, which recommends a sample size of 15–20 participants and recommendations for thresholds of saturation (the point where no new themes or insights emerge from additional interview data) typically being reached at a mean of 12–13 participants for individual interviews (Hennink & Kaiser, 2022). While codebook or coding reliability types of thematic analysis rely more heavily

on saturation to judge sample size, the concept is deemed less important for the reflexive thematic analysis used in this chapter (Braun and Clarke, 2021). As such, the sample for the current study was deemed adequate. Ethical approval for this project was granted by the University of Sydney Human Research Ethics Committee (protocol number: 2022/891).

3.2.3 Procedure

Interviews were conducted over Zoom video calls from April to June 2023. The interviews were semi-structured and guided by the structure in Table 3.1. Additional prompts were flexibly used to facilitate an in-depth discussion and to direct participants to expand on relevant topics. A more comprehensive interview guide, including the consent process, interview preamble, and potential prompting questions is included in **Appendix C**. The interview schedule reflected the structure of the quantitative survey in **Chapter 2** (e.g., stressors, coping strategies), seeking to gain greater depth and context around these topics. Interview lengths ranged from 38 to 67 minutes (M = 52.12, SD = 10.28). The audio from the interviews was recorded with the consent of participants and transcribed using Otter transcription software. Transcripts was manually reviewed for accuracy by the candidate and amended where necessary. Any identifying information, such as the participant's organisation or the location of their crisis helpline centre, was redacted. Additionally, the participant's name was replaced with a participant number (e.g., Ppt 1).

3.2.4 Data analysis

Reflexive thematic analysis was undertaken to identify and interpret themes, which are recurring, meaningful patterns in qualitative data (Braun & Clarke, 2006). Reflexivity refers to the ongoing process of critically examining how the researcher's own experiences may shape all stages of the research and is expanded upon in subsection 3.2.5 in relation to the current study.

Other qualitative approaches were considered but were deemed less appropriate. For example, content analysis focuses on quantifying the frequency of words or topics to infer their salience (Krippendorff, 2022). While useful for mapping the prevalence of concepts, it was less suited for the aims of this study which sought deeper insights into the lived experience of crisis supporters. Interpretive phenomenological analysis (IPA; Smith, 2011) emphasises detailed exploration of individual meaning-making, but its strong idiographic focus did not align with aims of the study. Reflexive analysis, by contrast, allows for the analysis of collective experiences, while acknowledging individual subjectivity (Braun & Clarke, 2021) making it well suited to explore the motivations, stressors, coping strategies, and support needs of crisis supporters.

Table 3.1 Semi-structured interview guide.

Work-based and demographic characteristics

1. Can you describe your role, including whether you're a volunteer or paid crisis supporter, how you provide support, and if you work remotely, from an office, or hybrid?
2. How long have you been in your role and how many hours do you work per month?
3. What is your age, what gender do you identify as, and what is the highest educational qualification you have obtained?

Motivations

1. What motivates you to work as a crisis supporter?
2. What aspects of the role do you find rewarding?

Stressors

1. Do you face any stressors or challenges in your role?
    a. Optional prompt: can you tell me about the nature of these challenges?
2. Do you find that any interactions with help-seekers will stick with you after your shift?
    a. Optional prompt: can you tell me more about these interactions?

Coping strategies

1. How do you cope with stress from your role immediately after a difficult shift? How about during a distressing interaction?
2. Have you ever used alcohol or other drugs to cope with stress from your role?
    a. Optional prompt: What was the circumstance?
3. Does supervision help you cope with stress from your role?
    a. Optional prompt: How so?
4. Are there any other ways you cope that are helpful for managing role-related stress?

Support preferences

1. Is there anything you wish you had available after a stressful shift?
2. Have you ever used, or heard about any effective wellbeing strategies at your organisation?
    a. Optional prompt: What were/are they?
3. What would a successful wellbeing program for crisis supporters look like?
4. How would you prefer to access wellbeing support (for example: app, website, phone calls, face-to-face, in groups)?
5. Are there any available supports that you don't find helpful or would like to change?

Closing

1. Is there anything else about your experience as a crisis supporter you would like to discuss?

Braun and Clarke's (2006) six-step approach to reflexive thematic analysis was used to code and synthesise themes from interview data. These steps are 1) build familiarity with the data through transcription, reading, and note-taking; 2) generate preliminary codes; 3) begin identifying themes; 4) review themes; 5) finalise and define themes; and 6) write the manuscript. This approach takes a critical realist/contextualist viewpoint, which proposes that reality exists independently of human perception, but understanding of it is mediated by an individual's social context and culture (Willig & Rogers, 2017). This viewpoint was deemed appropriate to interpret the individual perspectives of crisis supporters within the broader context of the organisations and systems that they worked within.

The first step of the thematic analysis process, also known as immersion, involved the candidate listening to each interview, reading transcripts, and making preliminary notes. The reviewed transcripts were then imported into the qualitative software NVivo (Lumivero, 2023), where the data were coded line by line. The initial codes were informed broadly by the topic of the interview guide, while additional themes were identified through a more open, iterative process as the data was explored in depth. The final themes were derived after consultation with the supervisory team.

3.2.5 Researchers' positionality and reflexivity

The candidate, who conducted and coded the interviews, volunteered as a crisis supporter for two years. In undertaking qualitative research, researchers shape findings through an interpretive process, perceiving data through the lens of their context and experiences (Willig, 2017). During their time in the crisis supporter role, the candidate felt intrinsically rewarded from the work, encountered a wide variety of callers including those at imminent risk of suicide, and coped with stress from particularly difficult shifts. These experiences were formative in developing the candidate's research interest in crisis supporter wellbeing.

The candidate's background in crisis support was disclosed to participants, which helped to establish rapport and a sense of common understanding. However, it also carried the potential for bias, as participants' experiences in the role may not align with those of the candidate. To mitigate this, the candidate remained aware of their positionality and how it could influence the interview process and the interpretation of data. While familiar with the experiences described, the candidate sought to remain attentive to each participant's unique account rather than overlaying their own. Reflexive practices also involved consultation with the supervisory team during theme development. In this way, the candidate aimed to balance the advantages of an insider perspective with awareness of its limitations.

3.3 Results

3.3.1 Participant characteristics

Participants were 15 crisis supporters, with a mean age of 42.5 years, (*SD* = 15.4). The sample was predominantly female (11/15) and highly educated, with the majority having completed an undergraduate or postgraduate degree (14/15). See Table 3.2 for all demographic and work-based characteristics.

Most participants were volunteers (9/15), with the remaining participants working in a paid capacity (6/15). The majority (11/15) conducted crisis support over the phone, with three working over both chat and phone modalities, and one participant exclusively over chat. Most (11/15) of the sample worked from a helpline office, 2/15 reported hybrid working arrangements, and 2/15 worked completely remotely. The mean hours worked per week was 9.1 (*SD* = 12.71), though this was heavily skewed, with 11/15 of participants working 1-5 hours per month. Participants ranged from 1 to 15 years of experience in their role (*M* = 4.20, *SD* = 4.0).

Table 3.2 Participant characteristics.

Characteristic	Descriptive statistics, *n* (%)
Gender	
Female	11 (73.3)
Male	4 (26.7)
Age (years)	
Less than 35	5 (33.3)
35–44	5 (33.3)
45–54	2 (13.3)
≥55	3 (20.0)
Crisis supporter role status	
Paid	6 (40)
Volunteer	9 (60)
Support modality	
Telephone	11 (73.3)
Chat	1 (6.7)
Both telephone and chat	3 (20)
Experience as crisis supporter	
Less than 1 year	4 (26.7)
1–2 years	2 (13.3)
3–5 years	6 (40)
6 years or more	3 (20)
Working arrangements	
Only in office	11 (73.3)
Only remote	2 (13.3)
Hybrid	2 (13.3)
Hours worked per month	
1–5	11 (73.3)
6–20	1 (6.7)
21–35	3 (20)
Highest qualification	
High school	1 (6.7)
Undergraduate degree or diploma	10 (66.7)
Postgraduate degree	4 (26.7)

3.3.2 Thematic analysis

Thematic analysis of the interviews identified six major themes: (1) finding satisfaction in helping others, (2) sources of stress in the role, (3) costs of caring, (4) coping with the work, (5) navigating a changed landscape, and (6) support preferences of crisis supporters. The full structure is outlined in Table 3.3.

Table 3.3 Thematic structure.

Primary themes	Subthemes
1. Finding satisfaction in helping others	1.1 Altruism 1.2 Connection with help-seekers 1.3 Personal growth
2. Sources of stress in the role	2.1 Frequent callers 2.2 Misuse of the service 2.3 Imminently suicidal callers 2.4 Organisational stressors 2.5 Uncertainty
3. Costs of caring	3.1 Empathy-based stress 3.2 Functional impairment 3.3 Moral injury
4. Coping with the work	4.1 Behavioural avoidance 4.2 On-shift emotional regulation and mindfulness 4.3 Off-shift self-care rituals 4.4 Social support 4.5 Shift preparation and completion routine
5. Navigating a changed landscape	5.1 Delivering crisis support over chat 5.2 Working remotely
6. Support preferences of crisis supporters	6.1 Addressing empathy-based stress 6.2 Varied preferences for wellbeing support 6.3 Promoting connection

3.3.3 Theme 1: Finding satisfaction in helping others

Participants described several aspects of the role where they found satisfaction in helping others. Although six participants were in paid crisis support roles, monetary rewards did not feature as a key motivator. Instead, feelings of altruism, connection, and opportunities for personal growth and development were the key drivers.

3.3.3.1 Subtheme 1.1: Altruism

Altruism was often described as a motivator for undertaking paid or volunteer crisis support work (11/15). Specifically, participants often emphasised selfless reasons for their ongoing involvement, for example, '*to make a difference*' (Ppt 7) or so help-seekers '*don't feel alone in the world*' (Ppt 6). Three crisis supporters described the role as rewarding in the sense that they were making a tangible difference in someone's life and four found that crisis support lines were

effective ways of supporting people. Additionally, some participants felt passionate about helping people in certain underserved population subgroups, such as young people (4/15) or men (1/15).

> *'I just believe in early intervention, mental health, being able to provide young people and children a space to talk about their experiences and I just think it's a pivotal time in a person's life.'* (Ppt 1).

3.3.3.2 Subtheme 1.2: Connection with help-seekers

More than half of participants felt rewarded by the depth of connection they feel with people who contact the line (8/15). One noted that the '*level of personal connection with a person in crisis can be quite profound'.* It was consistently emphasised that it was not common to converse with people with such depth in everyday life, and that it was a privilege to be able to have such intimate connections in their role.

> *'No one's ever spoken to me, personally, in my personal life at that level and something I just went, wow, you know, that's pretty amazing.'* (Ppt 6).

Participants described reasons that they felt intrinsically rewarded by in-depth connections, including that they were an '*empath*' or their cultural background prioritised directness and honesty rather than shallow small talk.

3.3.3.3 Subtheme 1.3: Personal growth

Another rewarding part of the role was the personal growth crisis supporters gained from their role. Participants (4/15) were appreciative for the counselling and crisis intervention skills they gained from training. They reported feeling more equipped to support people in their own life that struggle with mental ill-health or suicidality. These new skills also granted them a sense of mastery, as one participant reflected '*I think I'm pretty good at it'* (Ppt 7)*.* Two participants also reported a sense of purpose gained from crisis support work.

3.3.4 Theme 2: Sources of stress in the role

While there were rewarding aspects of crisis support work, all participants described parts of the role as stressful. These were exemplified by challenging caller profiles, including frequent callers, those who misuse the service, and callers at imminent risk of suicide. Factors at the organisation level also contributed, for example, night shifts or the demand for the helpline exceeding resources, resulting in callers waiting in a queue. Finally, uncertainty was a through line of crisis support work, ranging from the unpredictability of caller profiles to lack of knowledge about the outcome of a call.

3.3.4.1 Subtheme 2.1: Frequent callers

Frequent callers were discussed by 6/15 participants, who explained that certain people will call many times during a day and speak at length about the same issues.

> *'We have a problem with frequent callers. They are the calls that burn me out and are the only reason I would ever stop being a crisis supporter.'* (Ppt 11).

Participants acknowledged that frequent callers contacted helplines as an ongoing coping strategy, or due to loneliness or complex mental health issues, but that it often resulted in frustration, burnout, or compassion fatigue on their end. Participants felt there was a lack of organisational policy or training addressing how to manage frequent callers.

> *'The training does not really cover how to handle those calls. And they are very exhausting.'* (Ppt 12).

3.3.4.2 Subtheme 2.2: Misuse of the service

Another stressor identified by some participants was the misuse of the service, which included callers who contact the line for sexually motivated reasons or those who abuse crisis supporters (5/15). These calls were described as the most challenging component of the role as they 'blindside' crisis supporters and leave them feeling violated or demotivated. Female crisis supporters in particular felt vulnerable to these types of calls.

> *'It's callers presenting with a sexual theme... you're trying to assess if this is legitimate or someone misusing the service. Those calls feel violating because you never fully know…Unfortunately, as a female counsellor, part of me is always on alert when it's a male caller.'* (Ppt 15).

Participants described callers who would threaten them, yell at them, or even mock their voice. A crisis supporter described how this experience was uniquely demotivating:

> *'I'm willing to sit with somebody who may want to die… You're prepared to sit in people's pain, but you're not prepared for abuse and to be manipulated.'* (Ppt 11).

3.3.4.3 Subtheme 2.3: Imminently suicidal callers

Another stressful caller presentation reported by participants were those who were at imminent risk of suicide (6/15). Although participants felt prepared for such calls from training, such calls were less frequent than expected. High-risk calls were emotionally challenging, particularly when they ended in a negative outcome.

'They said they were intending to go ahead with their suicide. We engaged in a conversation for over an hour. At the end of that, they hadn't changed their mind.' (Ppt 6).

Participants (6/15) vividly recalled interactions where callers had already taken steps to end their own life or were calling from a location where they intended to kill themselves. They emphasised the intensity and high-stakes nature of these experiences, as well as the close emotional proximity they had felt as a crisis supporter.

'[A caller] said she's gonna kill herself by driving a car off the bridge. She's in the car and you're in the car with her [saying] can you please pull over and she's like, no.' (Ppt 14).

3.3.4.4 Subtheme 2.4: Organisational stressors

Participants (11/15) identified several components of their respective organisations and its operational aspects which served as stressors. As helplines are often available 24/7, participants were sometimes required to complete night shifts which were described as challenging (4/15) as they disrupted sleep, eating, and social schedules. One participant mentioned that *'you see less people, you have to adjust so much because most people work nine to five during the day'* (Ppt 15). Participants also mentioned that later shifts were often busier and featured more high-risk or complex calls, further adding to the potential stress.

Another organisational stressor was the number of callers waiting in the queue to talk to a crisis supporter. Participants (4/15) reported feeling anxious from the length of the queue, particularly during busy shifts, feeling an obligation to help as many people as possible. They also worried that highly suicidal callers might be waiting and drop out of line before they could receive support. This tied into stress incurred from long interactions with frequent callers, '*I've heard this person's story seven times…and we might have an imminent [term for high-risk suicidal caller] waiting in queue'* (Ppt 11).

Participants also mentioned stressors related to ongoing demands of the role (e.g., professional development requirements, hours to maintain accreditation; 3/15), organisational turnover and restructures (2/15), and additional duties such as coordinating emergency services or child support services (2/15).

3.3.4.5 Subtheme 2.5: Uncertainty

Uncertainty was described as an inherent part of the crisis supporter role (7/15). This presented in two ways: not knowing what to expect on a call and uncertainty about the fate of the caller after the call ends.

Participants (3/15) discussed the unpredictability of each call, describing the work as a '*lucky dip'* (Ppt 14) where they never know what kind of situation they will face. One participant described feeling that '*you don't know what you're going to get*' (Ppt 8), referring to the risk level of the caller, their demographics, or their story.

All participants who mentioned uncertainty also described it in relation to the outcome of an interaction. Once the call ends, crisis supporters rarely know if their intervention had any long-term impact or if the caller remained safe. The lack of resolution was difficult to cope with, especially in cases of callers at imminent risk of suicide callers or when they had formed a connection with the caller.

> *'He didn't have any hope and was planning to end his life. The emergency services were called, and I never heard another thing. I assume that they got to him in time. But I don't know.'* (Ppt 6).

3.3.5 Theme 3: Costs of caring

Crisis supporters spoke about several negative impacts of that delivering empathetic support had on their wellbeing.

3.3.5.1 Subtheme 3.1: Empathy-based stress

Most participants reported times where they had felt adversely affected by providing emotional support in their role (12/15). Often, this manifested in internalising symptoms, such as lowered resilience, agitation, and helplessness. Some participants (4/15) described the profound effect that the sad or bleak situations callers were in would have on them. In some cases, this sadness and distress manifested as crying during or after a shift (4/15).

> *'But if I've had a really difficult [shift], I will cry. That's just the way that I deal with it. So, I come off shift and I feel discombobulated…then I'll have a cry about it.'* (Ppt 2).

Participants spoke about instances of compassion fatigue or related distress. One participant noted, '*I had a discussion with a supervisor who was able to help me identify compassion fatigue, and it was a real turning point for me*' (Ppt 12). Others described feelings of depletion, exhaustion, or burnout, and some spoke euphemistically about negative effects from helping, describing calls '*sitting*' or '*sticking*' with them, or that they would feel '*darkness*' after a shift (Ppts 2, 8, 11, 13).

Three participants also described experiencing symptoms of vicarious trauma. Two talked about vividly recalling distressing calls after they had happened, one from their own account, '*I would picture them in my head…play out scenarios in my head'* (Ppt 14), and one from the perspective of

a student where '*some of the information they get, gives them a visual picture and she kept on seeing that in her head*' (Ppt 4). Two participants described being '*triggered*' on shift when a help-seeker's traumatic experience resembled their own (Ppts 14, 5).

There were several commonalities across the reported emotional effects of caring. Several participants (5/15) noted the additive effect of hearing trauma and supporting people, specifically that repeated exposure gradually increased the burden on their wellbeing. Participants (4/15) spoke about having to be proactive with taking breaks or self-care, as ill-effects, '*creep up on you*' and are hard to identify. Several crisis supporters (3/15) mentioned that friends or family members had noticed they were acting differently after shifts, when they had not noticed any changes in themselves.

3.3.5.2 Subtheme 3.2: Functional impairment

Participants frequently described ways that their crisis support work affected their ability to function in their role at the crisis line (8/15) or in their personal lives (6/15). Regarding impacts to their crisis supporter role, four interviewees mentioned having to cancel a shift or leave early due to distress. Others (2/15) mentioned that there was large turnover of crisis supporters at the helpline, which may be attributable to distress-related functional impairment, organisational stressors, or other factors. Paid crisis supporters (2/15) discussed an '*upper limit*' of how many hours they could work, around 30 hours a week, before the quality of the support they were giving drastically reduced. In their personal lives, some felt their capacity to care for friends or family was reduced (3/15), had trouble sleeping (2/15), driving (1/15), or engaging with media content that covered heavy topics (1/15).

3.3.5.3 Subtheme 3.4: Moral injury

Two participants described feelings akin to moral injury in helping professionals, whereby a practitioner knows the appropriate course of action but cannot deliver on this solution due to resource limitations (Donkers et al., 2021). Specifically, these participants felt a sense of distress or helplessness when they felt unable to support callers because of systemic barriers.

> *'There was another one where help seeker was living remotely and was desperately seeking support….I was on the phone with this person for maybe 30 or 40 minutes, just going through every single service…she tried all of them and had been turned away, they're too busy…There should have been a solution there...that was quite difficult.'* (Ppt 12).

Another participant was affected by a call from a man in an immigration detention facility.

> *'He was sort of pleading why he couldn't just be allowed to die, you know, rather than be detained for years and years. I found that very upsetting because I'm responsible for that.*

We are all responsible as members of the community for what we do to these people.' (Ppt 10).

3.3.6 Theme 4: Coping with the work

Crisis supporters used many coping strategies to deal with distress from their role. These strategies were varied in their adaptiveness and their effectiveness in alleviating stress.

3.3.6.1 Subtheme 4.1: Behavioural avoidance

Nearly half of the participants (7/15) reported using alcohol to cope with stress related to their crisis support work, with one reporting cannabis as well. These behaviours, while offering temporary relief, were acknowledged as maladaptive ways of managing emotional stress related to the role. Participants described times that they noticed they were drinking from role-related stress:

> *'I'll have a glass of wine to just destress… you know that's actually not great. But I did find that my alcohol consumption increased when I first started.'* (Ppt 2).

Some participants reporting relying on other avoidant coping behaviours, such as eating, to alleviate stress after shifts (3/15).

> *'I felt like I had failed that help seeker. The first thing I did was get in my car and drive to [fast food outlet] and then ate a lot of really terrible food.'* (Ppt 12).

3.3.6.2 Subtheme 4.2: On-shift emotional regulation and mindfulness

Most participants (10/15) also used adaptive coping strategies to manage stress, such as emotional regulation and mindfulness. Crisis supporters emphasised the importance of emotional self-awareness (5/15). They spoke about recognising emotional triggers during difficult calls and allowing themselves to acknowledge these feelings without letting them interfere with their role. One participant described the process of being '*honest with myself*' and acknowledging distress as a normal reaction to hearing traumatic content (Ppt 15).

Additionally, participants (5/15) discussed the importance of regularly checking in with themselves to gauge mental readiness. Ongoing self-assessment helped them maintain a balance between the demands of the role and personal boundaries and allowed them to avoid burnout while still providing effective support.

Grounding techniques were reported by several participants (5/15), for use when participants were feeling overwhelmed during a call, such as breathing exercises or sensory anchors like music or the caller's voice to ground themselves in the current moment.

> *'I take five seconds to breathe and then continue to focus, [instead of letting] it reach a point where I'm completely dysregulated and I'm not even hearing what they're saying.'* (Ppt 15).

Lastly, taking breaks were also a key strategy to for participants to mentally reset and prepare for the next interaction (4/15). Participants described going to get a cup of tea as a way of physically removing themselves from their workspace and getting some breathing space.

3.3.6.3 Subtheme 4.3: Off-shift self-care rituals

Self-care rituals were an important part of how participants cared for their own wellbeing. These strategies were diverse and included exercise, watching television, and taking breaks on shift, but in general the term self-care was used to refer to time that they had set aside purely for themselves.

Physical exercise as self-care was common (9/15), with participants going to the gym, walking, or swimming to carve out space for themselves.

> *'But what I normally do the next day [after shift] is I'll first thing in the morning I'll go for a swim. And I find that that sort of like washing it away.'* (Ppt 7).

Participants also noted a preference to engage in light-hearted activities with 'no stakes' after shifts, to contrast with their work (8/15). Often this was watching television (7/15), particularly shows that did not involve heavy emotional themes. Other examples were doing craft (1/15) or cooking (1/15).

3.3.6.4 Subtheme 4.4: Social support

Most participants (10/15) relied on social support from people in their professional and personal lives for managing stress after shifts. Casual or incidental debriefing (4/15) was mentioned as helpful for processing emotions after difficult calls. These interactions differed from formal supervision in that they were informal chats that happen, often spontaneously, around call booths or in the kitchen. One participant stated:

> *'It's that support network that builds connection, which grounds you to keep on going… sometimes you just want to chat about things without making it a targeted issue.'* (Ppt 8).

Discussing calls with family or friends was a key strategy for resolving emotions after work (6/15). This was described as particularly helpful if the loved one also worked in a helping profession as they *'get it'* (Ppt 1), referring to their ability to relate to stressors and understand the stakes of interactions. Participants (4/15) also spent quality time with their partner, kids, or pets to distract themselves from role-related stress and recharge.

3.3.6.5 Subtheme 4.5: Shift preparation and completion routine

Participants (5/15) spoke about ways that they maintained boundaries between their crisis support work and personal lives. Often these were ritualised start-of-shift or end-of-shift routines. For example, signing onto the call system was a literal and symbolic start to the shift for some (2/15), where they needed to be mentally primed for interactions.

> *'There's a preparedness that you need to have and you don't know what you're gonna get when you pick up that phone. So, when you click ready, you need to be ready for anything.'*

Other participants (2/15) used their commutes to bookend their shift. The commute home was seen as therapeutic time where crisis supporters could '*let go*' of stress from the day or night of calls. A participant described their before shift routine:

> *'At the core of our role is active listening, you can't have your mind thinking about work or anything else really. It takes a proactive approach to really try to shift into that space and get ready… I always take a breath when I parked my car and take that moment of relief before I go upstairs.'* (Ppt 8).

3.3.7 Theme 5: Navigating a changed landscape

Participants discussed new trends that have emerged in crisis support work in recent years, specifically the move to chat-based services and working remotely. Remote and online work was widespread during the COVID-19 pandemic and participants described varied working arrangements that they had in their organisations, many of which have remained after the pandemic.

3.3.7.1 Subtheme 5.1: Delivering crisis support over chat

In the sample of 15 participants, one delivered support exclusively via chat, three delivered both telephone and chat-based support (see Table 3.2), and the remaining worked only over telephone. Of the three who used both modalities, one primarily used chat, one primarily used telephone, and the other used both equally.

Participants (2/4 that delivered support over chat) noted that chat-based services were especially popular among young people who preferred communicating by typing, or by people who struggled to make telephone calls (e.g., due to social anxiety).

> *'Young people are more attracted to the digital, rather than the voice. In fact, many of them say they don't want to talk. They just want to text.'* (Ppt 6).

Chat-based services, however, can also present challenges for the crisis worker. A crisis supporter mentioned that they find it harder to connect with callers over chat than speaking on the phone. In addition, participants (2/4) felt that chat-based services received help-seekers who had a higher severity of suicide risk compared to telephone-based services, thus having higher exposure to potentially traumatic content. A participant who had spent a significant amount of time across both modalities said:

> *'Web has got more risk, generally… people [saying], "I might kill myself tonight.'* (Ppt 14).

3.3.7.2 Subtheme 5.2: Working remotely

In terms of the current working arrangements of this sample, two worked only remotely, two had hybrid arrangements, and eleven worked only in-person at the helpline office. However, several participants (7/15) had delivered crisis support remotely during the pandemic and referenced this period in interviews.

While remote work brought some benefits, there were also negative effects that were experienced. One participant mentioning that remote work allowed for more flexibility, while others (5/7) reported feelings of isolation. Participants felt that they missed out on the in-person connection and informal debriefing opportunities that came with a helpline office setting.

> *'I hate working from home because I did it for [crisis helpline] for like one year and a half and that sucked because I felt so isolated.'* (Ppt 14).

Moreover, the lack of separation between crisis support work and home life was a significant challenge for those working remotely, with participants (3/7) struggling to maintain boundaries due to the lack of physical separation between crisis support work and home life, which links to the work boundaries and hygiene topic.

> *'You have to make sure you have a private space. If you don't, it's your bedroom, which is not a good degree of separation.'* (Ppt 1).

> *'I would never bring [crisis helpline] home. Part of the psychological dissociation from that work is that I go and do it there... leave it behind. That's quite good for my own mental health separation.'* (Ppt 10).

3.3.8 Theme 6: Support preferences of crisis supporters

Crisis supporters described ways they would want to be supported in their role, as well as how they would want to access these supports.

3.3.8.1 Subtheme 6.1: Addressing empathy-based stress

Most participants (11/15) felt that they had limited knowledge about potential adverse effects of the work, such as compassion fatigue and vicarious trauma. About half (6/15) noted that these concepts had been discussed in initial training but were not an ongoing part of supervision or professional development, as one participant said, *'it's probably something that just doesn't get talked about enough'* (Ppt 12). Participants (4/15) identified that education about compassion fatigue and vicarious trauma could help to inform them about symptoms, risk factors, and prevention strategies.

Two participants also mentioned that screening or wellbeing checks could help identify at-risk crisis supporters. However, they also expressed concerns about the potential implications of disclosing symptoms, including fears of confidentiality being breached and resultant consequences to their employment or shift roster. Another suggestion (2/15) was a system that facilitates rotation for burned out crisis supporters, to allow them necessary breaks from the work. One participant cited the example of responders in disaster scenarios, where workers could request to be replaced if they were not coping.

3.3.8.2 Subtheme 6.2: Varied preferences for wellbeing support

Participants expressed varied preferences in how they would want to access support and resources to promote their own wellbeing. Notably, 6/15 indicated that crisis supporters are a heterogeneous population consisting of people from wide-ranging demographics, from university students to retirees, and they have varied preferences which need to be considered. Other participants were able to identify modalities that might be suitable for addressing compassion fatigue and vicarious trauma in the broader crisis supporter population, such as professional development seminars (3/15), or group supervision (1/15).

Around half of participants (7/15) found module-based learning challenging, reporting that the information does not 'sink in', or that they are fatiguing to complete.

> *'By the end of [the modules], I was just clicking through to be done with it. One thing that I've gotten a lot out of is different workshops that that I've attended in the last three months.'* (Ppt 5).

Conversely, four participants praised online learning, including module-based resources, when it was well-designed, prompted user engagement, or aesthetically pleasing. One participant shared:

> *'I like the digital modality… taking it in bite sized chunks and I'm able to potentially even reference back to it later if I notice things coming up.'* (Ppt 15).

3.3.8.3 Subtheme 6.3: Promoting connection

Most crisis supporters (9/15) expressed a want for more connection with their colleagues. Social contact with peers was described as '*connecting with like-minded individuals*' and a '*great joy*' (Ppt 10). The establishment of a support network, casual debriefs, and shared feelings of solidarity were viewed a protective against the potential negative impacts of the role.

Participants (8/15) suggested multiple strategies to increase connection among crisis supporters. These included connection groups (3/15), to serve as an opportunity to bond over a non-work activity (e.g., craft). This contrasts with group supervision, where crisis supporters discuss work-related topics, such as counselling skills. Another strategy loosely described by three participants, was an online platform that could connect crisis supporters around the country who might be working alone on a night shift or at an isolated helpline centre. Finally, other participants (3/15) felt that strong efforts should be made to facilitate connection between crisis supporters who may work remotely all or most of the time.

3.4 Discussion

This study explored the wellbeing of crisis supporters, seeking to understand commonalities of the experience of the role by using qualitative methods. Interviews also sought to understand preferences of crisis supporters in seeking support for their own wellbeing. The results identified several overarching, and interrelated themes, including motivations and stressors, which had resultant effects on wellbeing. To cope with such stressors, crisis supporters used various strategies before, during, and after shifts, and some avoidant coping was reported. Additionally, emerging trends in crisis support such as chat-based services and remote work presented unique challenges and opportunities for the workforce. Finally, crisis supporters suggested several strategies for wellbeing supports.

3.4.1 Satisfaction and stressors in the role

Several rewarding aspects reported from helping others through crisis work likely contributed to the high levels of compassion satisfaction identified in **Chapter 2**. Consistent with existing literature, the findings of this study identified altruism and personal growth as key sources of satisfaction and motivation for individuals in crisis support roles (Aguirre & Bolton, 2013; Kitchingman et al., 2024; Sundram et al., 2018). However, less research has explored another subtheme that emerged in this study, the rewarding nature of the deep, intimate connections formed with help-seekers, which were described as one of the most fulfilling aspects of their work.

As expected, stressors were a salient part of the crisis supporter experience. Sources of stress included challenging caller profiles such as abusive, sexually-motivated, and frequent callers, echoing quantitative findings from **Chapter 1**, as well as findings from previous research (Pirkis et al., 2016; Vattøe et al., 2020; Willems et al., 2021). Other challenges were organisational-based stressors, including shift work. Crisis lines are often 24-hour services, meaning some workers are scheduled to work nights, putting them at increased risk of mental and physical ill-health (Moreno et al., 2019). The current study adds to the literature by highlighting uncertainty as a stressor, which has not been extensively discussed in previous work. Uncertainty is inherent to the work, as crisis supporters often do not know the outcome of high stakes interactions and are unable to anticipate the nature of the next call. Stressors were intertwined with another overarching theme, the impact of stressors on wellbeing, which will be expanded later in this discussion.

In summary of these themes, it would stand to reason that the rewarding parts of crisis support work must outweigh the stressors for crisis supporters to remain in their role. This is particularly the case for the significant proportion who are unpaid volunteers (59.2% of the **Chapter 2** sample). Crisis support organisations have high turnover rates, with Yanay and Yanay (2008) reporting dropout rates of up to 50% at critical junctures, including immediately post-training and after one year of volunteering. Such high attrition of crisis supporters is costly, given the time and labour spend of training programs, which can exceed 150 hours of supervised shifts and training (Gilmore et al., 2022). Strategies that amplify rewarding parts of the role, and mitigate the effect of stressors, may be central to retention of crisis supporters.

3.4.2 The costs of caring

Various impacts of stressors on wellbeing were described, which mapped onto empathy-based stress, functional impairment and moral injury. These findings are consistent with the survey data examined in **Chapter 2**, where subgroups of crisis supporters reported high levels of psychological distress (30.5%) and compassion fatigue (20.1%). They also support broader literature that asserts that crisis support work can result in adverse effects to wellbeing (Kitchingman et al., 2018b; Willems et al., 2020). Some evidence of moral injury was observed, which has predominantly been researched in military populations (Donkers et al., 2021), suggesting that the concept may warrant further investigation in the current population.

The interviews also provided evidence of functional impairment resulting from work-related distress. Consistent with Kitchingman et al.'s (2017) quantitative findings, participants reported negative impacts on both their work and personal lives. In the present study, almost a third of crisis supporters reported instances of absenteeism (cancelling a shift or leaving early) or

presenteeism (impaired functioning at work) due to distress. This proportion is numerically similar to the subgroup reporting high levels of psychological distress and compassion fatigue in the survey sample (**Chapter 2**). As has been demonstrated in a large, longitudinal sample of Australian working adults, psychological distress and subsequent functional impairment can have deleterious financial and operational consequences for organisations (Keramat et al., 2025).

3.4.3 Coping

Consistent with findings from **Chapter 2** and prior research (Dunkley & Whelan, 2006; Kaur, 2021; Roche & Ogden, 2017), coping strategies played a central role in supporting wellbeing. Crisis supporters described a range of strategies that were perceived as effective in helping to manage stressors. These strategies broadly aligned with problem-focused (e.g., maintaining boundaries between work and personal life, debriefing) or emotion-focused efforts (e.g., emotional regulation, self-care rituals). In practice, strategies often overlapped, reflecting evidence that coping responses may straddle multiple categories depending on context (Bonanno & Burton, 2013).

Social support was another coping resource. Debriefing or connecting with peers, friends, or family was reported as helpful, consistent with evidence that perceived social support is related to reduced burnout and increased compassion satisfaction (Donnellan et al., 2023; Spafford et al., 2023). Evidence supports the notion that peer connection is an important existing resource that organisations should actively nurture within the work environment.

In contrast to these approaches, crisis supporters also reported avoidant coping. When prompted, nearly half the sample (7/15) described using alcohol, and one reported cannabis use, to manage role-related stress. This is the first qualitative study to document substance use as a coping strategy among crisis supporters, contextualising prior work that has found associations between avoidant coping and poorer wellbeing in this population (Kitchingman et al., 2018a; Roche & Ogden, 2017).

3.4.4 Navigating a changed landscape

This study provides novel qualitative insights into how emerging trends in crisis support, specifically chat-based services and remote work, influence the lived experience of crisis supporters. Consistent with prior research (Williams et al., 2021), participants noted that chat-based services are predominantly accessed by young people. Notably, both dual-modality crisis supporters in the present study perceived greater exposure to suicidal help-seekers over chat than by phone, in accordance with studies of service use data (Gould et al., 2013, 2021). These

findings suggest that delivering chat-based support may be a distinct experience, potentially involving greater exposure to trauma, albeit over a more emotionally distant medium. Prior research indicates that suicide exposure in crisis supporters is associated with anxiety and depression (Aldrich & Cerel, 2020), which may help to explain the higher psychological distress observed among chat-based crisis supporters in **Chapter 2**.

Remote work was also discussed by seven participants who worked remotely during the pandemic. Four continued to do so partially or entirely. While some valued the flexibility, most described feelings of isolation, loss of informal peer interactions, and blurred boundaries between work and home. These findings are consistent with qualitative (Cooney & McCashin, 2023) and quantitative studies (Willems et al., 2021), which found that remote work was related to isolation and intention to leave. They also provide context to the findings from **Chapter 2** that remote work was associated with increased compassion fatigue. Given the persistence of hybrid and remote models of work, organisation will need to actively counteract risks of isolation, such as using video calls for scheduled supervision or connecting with peers.

Together, these findings suggest that the experience of the crisis support role is evolving in ways that may intensify existing stressors while also creating new ones. Organisational responses must adapt accordingly to support the wellbeing of crisis supporters in a changing landscape.

3.4.5 Support needs and preferences

A novel contribution of this study was documenting crisis supporters' suggestions for preferred forms of wellbeing support. Several suggested that psychoeducation regarding compassion fatigue and vicarious trauma would be beneficial, and the majority felt they had limited knowledge of these concepts. Considering the consensus in the literature that empathy-based stress is a risk of crisis support work (Kitchingman et al., 2018b; Willems et al., 2020), alongside the 20.2% of crisis supporters falling in the high category of compassion fatigue in **Chapter 2**, this is concerning. The WHO guidelines on mental health at work (2022) emphasise that psychoeducation can improve mental health literacy, yet there is very little evidence that it improves wellbeing outcomes. However, the guidelines note there is no evidence of harms from psychoeducation, and as such, it may have value as an adjunct intervention.

Crisis supporters themselves noted the diversity of their workforce and support needs, aligning with the heterogeneity of sample characteristics observed in **Chapter 2** (e.g., age ranged from 20–86, 59.2% volunteers and 40.8% paid staff). Reflecting this, there were mixed perceptions of certain modes of delivery. Some participants described online learning as fatiguing, yet user-friendly digital resources were viewed positively. This is consistent with broader evidence that

engagement with online mental health interventions is often undermined by poor design, whereas those that show strong usability have higher uptake (Lipschitz et al., 2023). Accordingly, interventions for crisis supporters should be developed with attention to both the diversity of the workforce and the user experience, ensuring that no subgroups are overlooked.

Finally, most participants suggested initiatives to increase connection with peers. Evidence among crisis support populations shows that perceived peer support is associated with increased compassion satisfaction and lower burnout (Donnellan et al., 2023; Spafford et al., 2023). This echoes earlier themes on the importance of social support for coping, as well as the challenges of isolation when working remotely. A novel suggestion was a dedicated online platform to connect crisis supporters, which parallels an initiative suggested in an Appreciative Inquiry-guided co-design process aiming to reduce distress among healthcare workers (Jelen et al., 2024). More broadly, a systematic review of peer support programs found preliminary evidence for improvements in wellbeing in emergency services and healthcare workers (Anderson et al., 2020). Social support is clearly valued by crisis supporters and organisations should consider implementing initiatives to formalise this existing resource.

3.4.6 Strengths and limitations

A strength of the study was the inclusion of crisis supporters from two organisations with distinct service models, one predominantly volunteer-based and one staffed by paid employees. This diversity strengthens the relevance of the findings beyond a single organisational context. Another strength is in the analytic approach; this is the first study to use thematic analysis to investigate crisis supporter wellbeing. The method allowed for both an exploration of collective experiences in the role, but also attention to individual subjectivity. In the same vein, the researcher's lived experience as a crisis supporter conferred advantages. It likely facilitated rapport with participants and imparted subject matter expertise in insider terminology (e.g., slang, jargon, acronyms).

There were also several limitations. Self-selection processes introduced the potential for selection bias, for example those who took part may have had a particular interest in workplace mental health or wellbeing. In addition, although the study drew valuable insights into the changing landscape of crisis support, the sample comprised of relatively few crisis supporters practicing chat-based support and current remote workers. Given the distinct challenges reported by these groups, future research should aim for greater representation, for further investigation of their experiences.

3.4.7 Conclusion

In sum, this study makes a significant contribution to the limited field of qualitative crisis supporter wellbeing research. It represents the first application of reflexive thematic analysis, and complements the quantitative research conducted in **Chapter 2** with an in-depth exploration of the satisfying and challenging aspects of the crisis supporter role. Findings showed that while altruism, personal growth, and human connection may underpin compassion satisfaction, crisis supporters experienced that work-based or organisational challenges negatively affected wellbeing. It also identified varied positive coping strategies, as well as observing avoidant strategies including the first reports of substance use to cope in crisis supporters.

Importantly, crisis supporters articulated what preferred supports would look like, calling for psychoeducation about empathy-based stress, multifaceted interventions to support diverse needs, and opportunities for connection with peers. In relation to the Appreciative Inquiry framework, these findings contribute to the *Discover* phase by deepening understanding of experiences in the work and existing strengths, particularly successful ways of coping. Further, the investigation of crisis supporters' preferences for support informs the *Dream* phase by providing insights into their perceptions of ideal supports. By centring the perspectives of those in the role, this study provides guidance for the development of wellbeing interventions. The next chapter builds on these novel insights by systematically reviewing the evidence base for wellbeing interventions in crisis supporters and comparable helping professionals.

Chapter 4

Wellbeing interventions for crisis supporters and comparable roles: A systematic review and meta-analysis

Abstract

Background: Crisis supporters frequently provide empathetic care and are exposed to traumatic content through their work, placing them at risk of negative impacts to their wellbeing. However, no evidence-based wellbeing interventions have been developed or evaluated for this workforce. This systematic review and meta-analysis aimed to synthesise evidence on the efficacy of wellbeing interventions for crisis supporters and comparable professions, specifically social workers and counsellors, who provide counselling to people in mental health crises. *Method*: Following PRISMA guidelines, searches of PsycINFO, MEDLINE, Embase, and Scopus were conducted from inception to April 2023. Eligible studies evaluated interventions designed to improve the wellbeing of workers delivering counselling to people in crisis. Thirteen studies met inclusion criteria, and data from six controlled studies were pooled in meta-analyses. *Results*: Interventions predominantly targeted social workers (n = 11) and none focused on crisis supporters. Over half were mindfulness-based (n = 7), while other programs were based on Acceptance and Commitment Therapy (ACT; n = 2), psychoeducation (n = 2) and one each evaluated art therapy and an online community. Meta-analyses showed significant moderate effects in reducing stress ($g = -0.62$) and burnout ($g = -0.46$), with no difference between online and in-person delivery. *Conclusion:* Wellbeing interventions, particularly those based on mindfulness and ACT, show promise for improving wellbeing in roles providing counselling to people in crisis. However, the evidence base remains limited by methodological weaknesses and the absence of interventions tailored for crisis supporters. These findings highlight the need for the development and rigorous evaluation of targeted, context-specific wellbeing programs for this workforce.

4.1 Introduction

Crisis supporters play a vital role in supporting people experiencing mental health crises (Aldrich & Cerel, 2020) characterised as sudden periods of acute distress where a person experiences intense negative emotions and can have thoughts of suicide or self-harm (Hawton, 2007). In responding to mental health crises, crisis supporters assess risk, practice active listening, and aim to promote coping strategies (Tripathi et al., 2023). While this work is often deeply rewarding, it is inherently high stakes and presents two salient challenges to wellbeing central to this chapter: i) exposure to traumatic content and ii) sustained empathetic engagement.

Supporting people in crisis involves close proximity to life-or-death circumstances, where workers may encounter traumatic content while having limited control over the outcome. In fact, almost one in ten callers have already taken steps to harm or kill themselves (Gould et al., 2007). Concerningly, research reports that 31% of crisis supporters have been exposed to a death by suicide in their role, an experience associated with symptoms of depression, anxiety, and PTSD (Aldrich & Cerel, 2020).

In addition to exposure to traumatic content, providing empathetic care to others in a professional capacity can have adverse effects for the person providing the support (Bride et al., 2007). This may be particularly true for more urgent or intense interactions, with research showing that the urgency of a call is strongly associated with self-reported in-shift stress among crisis supporters (Mishara & Giroux, 1993). In qualitative research, counsellors have similarly described working with clients in crisis as more draining or exhausting compared to clients who are not experiencing a crisis (Carrick, 2014).

As described in **Chapter 1**, the consequences of providing empathetic care can manifest in multiple ways, collectively referred to as empathy-based stress. Compassion fatigue is one such manifestation that has been widely documented among crisis supporters (Donnellan et al., 2023; Dunkley & Whelan, 2006; O'Sullivan & Whelan, 2011; L. Zhang et al., 2021). As outlined in **Chapter 2**, 20.1% of a diverse sample of crisis supporters (n = 422) reported high compassion fatigue and 30.5% reported high or very high psychological distress—a rate three times higher than the general population (Slade et al., 2011). While this survey was cross-sectional, and cannot establish causation, the qualitative study in **Chapter 3** provided complementary evidence, with crisis supporters describing distress, compassion fatigue, and vicarious trauma from their role. Further, longitudinal research supports these findings by identifying links between crisis support work and psychological distress (Kitchingman et al., 2018c; Mishara & Giroux, 1993). Other research has reported on symptoms of vicarious trauma (Dunkley &

Whelan, 2006; Hawgood et al., 2022) and burnout (O'Sullivan & Whelan, 2011; Roche & Ogden, 2017) in this population. As such, those supporting people in crisis may be at elevated risk of several adverse wellbeing-related outcomes.

In response to these challenges, there is a need for initiatives that promote the wellbeing of crisis supporters. Within the Appreciative Inquiry framework, this chapter contributes to the *Discover* phase by examining which interventions may hold promise for supporting crisis supporter wellbeing. However, research on the development and evaluation of such interventions remains scarce. While some studies have made recommendations for strategies to support crisis supporters, including debriefing (Kinzel & Nanson, 2000; Vattøe et al., 2020), psychoeducation (Gilmore et al., 2022; Stamm, 2015), supervision (Stamm, 2015; L. Zhang et al., 2021), and mindfulness (L. Zhang et al., 2021), none have been evaluated within these populations. Without formal evaluation, it is unclear how effective these approaches are in practice.

In the absence of evidence-based interventions for crisis supporters, interventions that are effective in improving the wellbeing of other helping professionals may provide insights. Several existing reviews are relevant (Bercier & Maynard, 2015; Kim et al., 2021; Lipsa et al., 2024). Lipsa and colleagues (2024) conducted a systematic review and meta-analysis of interventions targeting compassion fatigue among helping professionals, identifying 82 studies primarily conducted with nurses and other healthcare workers. The findings of 11 RCTs were synthesised in a meta-analysis with effects reported as the standardised mean difference (SMD). The pooled effect indicated that interventions targeting compassion fatigue demonstrated greater efficacy in reducing compassion fatigue compared to the control conditions (SMD = –0.95). Online interventions, which included self-guided audio, mobile applications, daily motivational texts, and online module-based learning, were particularly effective (n = 5; SMD = -1.22). A limitation of this review was the lack of detail regarding comparator conditions (e.g., whether controls consisted of no intervention, waitlist, or active comparators), which limits the ability to interpret the relative efficacy of interventions.

Kim and colleagues' (2021) scoping review synthesised evidence for vicarious trauma interventions for professionals who work with people who have experienced trauma. Twenty-seven studies were reviewed, including approaches such as mindfulness programs, psychoeducation, and art and recreation programs. The authors reported that these interventions were generally effective in reducing key outcomes, including compassion fatigue and secondary traumatic stress, regardless of intervention type. However, the lack of a meta-analysis limited the strength of conclusions. A further limitation was the narrow scope relating to outcomes, with studies only included if interventions targeted vicarious trauma. However, as

is evident from the literature review in **Chapter 1** and the results of the survey and interviews presented in **Chapters 2** and **3**, respectively, a wide range of wellbeing outcomes are relevant to crisis supporters and comparable roles, including, but not limited to compassion satisfaction, psychological distress, and substance use. Regardless, the findings of Lipsa et al. (2024) and Kim et al.'s (2021) reviews suggest that targeted interventions, especially when delivered online, have the potential to meaningfully reduce empathy-based stress among helping professionals.

Overwhelmingly, reviews of empathy-based stress have synthesised evidence related to helping professionals working in physical health contexts, rather than mental health contexts. In Lipsa et al.'s (2024) research, 14.6% of reviewed studies (12/82) included mental health professionals, and in Kim et al.'s (2021) review only 3.7% (1/27) did so. Even in these cases, samples were heterogeneous, including other health and administration staff. Contrastingly, Bercier and Maynard (2015) conducted a scoping review of empathy-based stress interventions for mental health professionals, finding no eligible studies. Although their search was conducted in 2012, these findings are indicative of the wider field of evidence. However, as all three reviews focused their inclusion on interventions targeting empathy-based stress outcomes, they may have excluded studies that assessed broader wellbeing outcomes among mental health professionals.

Given the overall paucity of research on wellbeing interventions for crisis supporters, the present review takes a broader perspective, drawing insights from comparable mental health professions. Accordingly, it synthesises evidence, and where possible undertakes meta-analyses, on the efficacy of interventions aiming to promote wellbeing in roles that provide counselling to people in crisis. Wellbeing is defined by both positive and negative contributors to psychological, emotional, and social health (e.g., compassion satisfaction, compassion fatigue, psychological distress, substance use).

The research questions are as follows:

i) To what extent have wellbeing interventions been evaluated in the literature to support those who provide counselling to people in mental health crisis, in particular, crisis supporters?
ii) What is the efficacy of wellbeing interventions for roles who provide counselling to people in mental health crisis in improving wellbeing?
iii) What factors are associated with intervention efficacy, including therapeutic approach and delivery modality (i.e., in-person, online)?

4.2 Method

This systematic review and meta-analysis adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (see **Appendix D**). The review was prospectively registered with the International Prospective Register of Systematic Reviews (PROSPERO; registration number: CRD42023422224).

4.2.1 Search strategy

Searches of four electronic databases were conducted: PsycINFO, MEDLINE, Embase, and Scopus from inception to April 2023. The search strategy included Medical Subject Headings (MeSH) terms, adapted for the conventions of each database, and keywords (for full strategy, see **Appendix E**). Wildcard characters (e.g., using "?" to replace a single character, such as "self?care" to include both "self-care" and "self care") and truncation symbols (e.g., using "counsel*" to include "counselor" and "counselling") were employed to ensure keywords captured alternate spellings and derived words. No language restrictions were placed on the search.

Search terms specified the inclusion of three concepts:

1. occupations that provide counselling to people in crisis (e.g., "crisis supporters", "social workers", "counsellors"); and
2. wellbeing outcomes (e.g., "stress", "anxiety", "compassion fatigue", "alcohol", "compassion satisfaction"); and
3. study design (e.g., "efficacy", "effectiveness", "randomised controlled trial").

4.2.2 Inclusion and exclusion criteria

Peer-reviewed studies were eligible for inclusion if they met the following criteria: i) participants were paid employees or volunteers who provide counselling to people in mental health crisis, including crisis supporters, social workers, and counsellors; ii) the study evaluated an intervention aimed to enhance employee or volunteer wellbeing; and iii) the study design was an RCT, quasi-experimental study, or single group pre-post design.

Studies were excluded if: i) they were cross-sectional or qualitative research, commentaries, protocols, or conference papers; ii) participants were students or trainees; iii) participants were under 18 years old; iv) participants were healthcare professionals primarily providing physical care (e.g., nurses, physicians); or v) participants were in roles that differed substantially from crisis supporters (e.g., psychologists, psychiatrists).

Samples including psychologists and psychiatrists were excluded as these professions operate within distinct regulatory frameworks (e.g., Australian Health Practitioner Regulation Agency [AHPRA] in Australia) that mandate rigorous training, supervision, and professional development requirements. In contrast, crisis supporters are largely volunteers who complete short, specialised training programs (Gilmore et al., 2022). Given these organisational distinctions, psychologists and psychiatrists were not considered comparable to crisis supporters.

4.2.3 Screening and extraction

Covidence, a web-based systematic review tool, was used to facilitate the screening of studies and data extraction. Papers were imported into the software and duplicates were removed. In the title and abstract stage, the candidate screened all studies, and a second reviewer independently screened a random 50% subset of the studies. The candidate and second reviewer independently conducted full-text screening and disagreements were resolved through discussion with the wider study team. Cohen's Kappa indicated that inter-rater agreement was weak for title and abstract screening ($\kappa = 0.49$) and strong for full-text screening ($\kappa = 0.87$), using McHugh's (2012) interpretation. The weaker agreement at the title and abstract stage reflected discrepancies in the use of the screening software's "maybe" option. One reviewer used this option liberally in place of "exclude", which the software coded as an "include" when calculating inter-rater reliability. This inflated the apparent disagreement rate, but in practice it meant that more studies progressed to full-text screening, where studies were reevaluated by both reviewers.

The candidate extracted data from the included papers using a customised template in the Covidence extraction tool. The data for extraction was as follows: study authors, year of publication, study design, study aims, location of data collection, sample size, participant demographic characteristics (age, gender), participant workplace characteristics (role, hours per week, experience in role), details of the intervention (type of intervention, duration, number of sessions, delivery modality, setting, program facilitator), details of the control condition (if applicable).

Relating to results, the analysis plan, timepoints of measurements, and results pertaining to wellbeing outcomes were also extracted, including stress, burnout, compassion fatigue, psychological distress, vicarious trauma, negative affect (e.g., depression, worry, anxiety), and satisfaction. For each variable, information on measurement instrument, group means and standard deviations at each time point, as well as effect sizes (e.g., Cohen's *d*), and other test

statistics (e.g., *F, p* values*)* were extracted. After the extraction phase was completed in Covidence, the data were exported to Excel.

4.2.4 Quality assessment

The quality of included papers was assessed with a modified version (Korakakis et al., 2018) of the Downs and Black Quality Index (1998). This checklist comprises 27 items and evaluates quality in relation to five dimensions: reporting, external validity, internal validity (bias), internal validity (confounding), and statistical power. All items were scored as 0 ('No' or 'Unable to determine'), 1 ('Yes'), except for Question 5 which was scored 0 ('No'), 1 ('Partially'), or 2 ('Yes'). Each study's total score was categorised as 'poor' (≤14), 'fair' (15–19), 'good' (20–25), or 'excellent' (26–28). The candidate and a second reviewer independently rated each study, and conflicts were resolved by conversation between the reviewers.

4.2.5 Evidence synthesis

A narrative synthesis, and where possible a meta-analysis, was used to address the research questions. The intervention details are described, grouped by therapeutic approach. Preliminary efficacy findings from uncontrolled (single-group pre-post) studies are then presented, followed by efficacy results from studies with a control group (RCTs and quasi-experimental studies). Effect sizes (e.g., Cohen's d, Hedges' g) were interpreted according to established guidelines, with small (d = 0.2), medium (d = 0.5), and large (d = 0.8) effects (Sawilowsky, 2009).

Only studies with a control group were included in the meta-analysis for two reasons: i) as effect sizes from uncontrolled studies (based on within-group pre-post change) are not directly comparable to those from controlled designs (based on between-group differences) and ii) because controlled studies provide higher-quality evidence than uncontrolled studies, as they estimate the specific effect of the intervention relative to a comparator, rather than natural change over time (Hedges & Olkin, 1985).

4.2.6 Meta-analysis

Effect sizes were calculated for each controlled study using Hedges' *g*, a modified standard mean difference that includes a correction for small sample sizes (Hedges & Olkin, 1985). This statistic was appropriate as some included studies had small samples (e.g., n's < 25; Gregory, 2015; Rabin et al., 2000; Trammel et al., 2021) and was calculated using the *metafor* package (Viechtbauer, 2010) in R (version 4.3.1; R Core Team, 2023).

Hedges' *g* was computed as follows using the *escalc* function:

$$g = \frac{M_1 - M_2}{SD_p}$$

where M_1 and M_2 are the group means at post-test and SD_p is the pooled standard deviation calculated as:

$$SDp = \sqrt{\frac{(n_1 - 1)SD_1^2 + (n_2 - 1)\mathrm{SD}_2^2}{n_1 + n_2 - 2}}$$

Here n_1 and n_2 represent the sample sizes of each group and SD_1 and SD_2 the standard deviations of each group at post-test. For studies where means, standard deviations, standard errors, or sample sizes were not reported, the missing information was requested from study authors via email. To account for variability in the true effect size between studies, a random-effects meta-analysis was conducted to estimate the pooled effect size using the *metafor* package in R (R Core Team, 2023; Viechtbauer, 2010). This analysis used the restricted maximum-likelihood (REML) estimator to account for between-study variance. Significance was determined via a p-value of $< .05$.

4.3 Results

After removing duplicates, the search returned 8,090 articles (see Figure 4.1). During the title and abstract stage, 8,022 articles were excluded, resulting in 68 articles advancing to full-text review. Of these, 55 studies were excluded, primarily because the samples did not consist of the target population (see Figure 4.1 for more detail on exclusion reasons), leaving 13 studies eligible for inclusion in the review.

4.3.1 Study characteristics

Table 4.1 summarises the characteristics of the 13 included studies, including study design, participant characteristics, intervention description, statistical results, and quality assessment. The studies have been numbered from 1-13 in Table 4.1 and will be referenced by their study number in this results section. Of the studies, six were RCTs (1, 3, 6-9), four were single-group pre-post study designs (4, 11-13), and three were quasi-experimental (2, 5, 10). Nine studies included control groups (1-3, 5-10) while the remaining four did not (4, 11-13). Regarding geographical location, six studies were based in the U.S. (2, 3, 7, 11-13), three in the U.K. (4-6), one each in Sweden (1), Turkey (8), and Israel (10), and one sampled broadly across Asia and Africa (9).

Sample sizes at baseline varied significantly across studies, ranging from 11 (2) to 282 (9). Most studies reported follow-up rates of 70% or more, but rates ranged from 36.5% (7) to 100% (2, 11). Follow-up was predominantly conducted once at the conclusion of the intervention program, but four studies measured outcomes at later dates, such as 2 months (6-8) or 3 months (3) post-intervention. Although no date restrictions were imposed on the search strategy, all studies were published between 2000 and 2023.

Figure 4.1 PRISMA flow diagram of study selection.

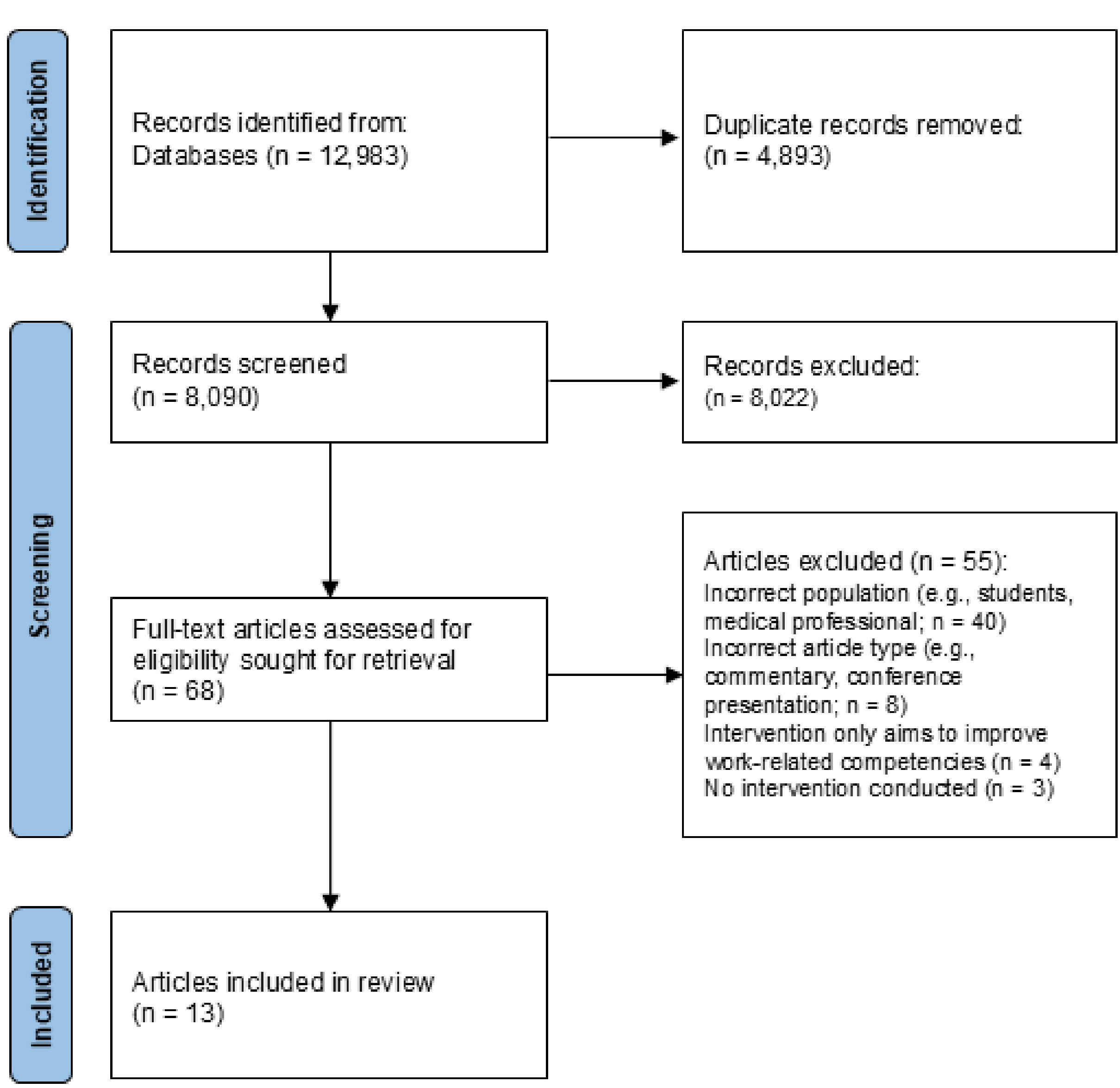


Table 4.1 Characteristics of studies evaluating the efficacy of wellbeing interventions for roles who provide counselling to people in crisis.

	Participant characteristics					
Study & study design	***Sample (n)***	***Study population & country***	***Intervention and control description***	***Outcomes evaluated***	***Analysis and findings***	***Quality***
(1) Brinkborg 2011 RCT	Baseline: 106 2-week follow-up: 94 (88.7%)	Social workers, Sweden	Intervention group: Received 4 x 3-hour workshops based on Acceptance and Commitment Therapy (ACT) principles. Delivered in face-to-face groups and aimed to increase psychological flexibility. Control group: Waitlist control.	Stress (PSS) Burnout (MBI) Psychological distress (GHQ-12) Self-esteem (PBSE) Demand-Control-Support (DSCQ)	Between-group analysis showed that compared to waitlist control, ACT was favourable in improving stress $F(1, 103) = 12.88$, $p = .001$, $d = 0.72$ (95% CI [0.30, 1.13]), burnout ($F(1,103) = 15.3$, $p < .001$, $d = .50$ (95% CI [0.09, 0.91]), and distress ($F(1,103) = 5.48$, $p = .021$, $d = .38$ (95% CI [-0.03, 0.79]). There were no significant intervention effects on self-esteem and DSCQ.	Fair
(2) Gregory 2015 Non-randomised experimental study	Baseline: 11 Post-intervention: 11 (100%)	Social workers, U.S.	Intervention group: A yoga and mindfulness program based on Buddhist principles. Delivered in-person at a yoga studio, 3 x 1-hour session. Control group: No treatment	ProQOL-5 subscales: - Burnout - Secondary traumatic stress (STS) - Compassion satisfaction	Measured with t-tests, within-group analyses showed no significant pre–post changes in the intervention group in burnout, STS, or compassion satisfaction. However, the control group demonstrated a significant reduction in compassion satisfaction from pretest to posttest ($t(4) = 6.00$, $p = .004$, $d = 3.51$).	Fair

(3) Hayes et al. 2004 RCT	Baseline: 93 Post-intervention: 93 (100%) 3-month follow-up: 85 (91.4%)	Licensed addiction counsellors, U.S.	Group 1: ACT: Aimed at reducing the impact of negative thoughts through acceptance, mindfulness, and cognitive diffusion. Group 2: Multicultural training: Focused on reducing stigma against other cultures through group activities and discussions. Not aimed at directly improving counsellor wellbeing. Control group: Received educational material about substance use disorders.	Burnout (MBI) subscales - overall burnout (depersonalisation + exhaustion) - personal accomplishment	Overall burnout showed a significant Time × Group interaction ($F(4, 180) = 4.05$, $p = .004$). Within groups, significant improvements were observed in the ACT group from baseline to post-test ($t(29) = 3.01$, $p = .005$) and follow-up ($t(29) = 2.70$, $p = .012$). The multicultural training group showed improvement at post-test ($t(33) = 2.33$, $p = .026$) but not at follow-up. No change was seen in the control group. Between groups, ACT was superior to control at post-intervention ($t(36) = 2.44$, $p = .02$), but not at follow-up. At follow-up, ACT was better than multicultural training ($t(60) = 2.72$, p = .008). Personal Accomplishment: Significant Time × Group interaction ($F(4, 180) = 2.60$, $p = .038$). The control group worsened at follow-up ($t(29) = -2.33$, $p = .027$). No significant changes in the ACT and multicultural groups. At follow-up, multicultural training was favourable to control ($t(51) = 2.74$, $p = .009$).	Good
(4) Kinman et al. 2020 Pre-post study	Baseline: 26 8-week follow-up: 18 (69.2%)	Social workers, UK	All participants received an adapted form of Mindfulness-Based Stress Reduction (MBSR) and Mindfulness Cognitive Therapy, including practices and reflective exercises such as body-scan, breathing, and self-compassion breaks.	Stress (PSS) ProQOL subscales: - compassion fatigue - compassion satisfaction	There was a significant reduction from baseline to 8-weeks in stress $t(25) = 4.12$, $d = 0.87$, $p < .001$ and compassion fatigue $t(25) = 3.15$, $d = 0.63$, $p < .01$, and a significant increase in compassion satisfaction $t(25) = -2.78$, $d = 0.64$, $p < .01$.	Fair

			Delivered in-person in group sessions over eight weeks.			
(5) Kinman and Grant 2017 Non-randomised experimental study	Baseline: 56 8-week follow-up: 54 (96.4%)	Newly qualified children's social workers, UK	Intervention group: Participants received a multimodal intervention including training in peer support, goal setting, coping skills, cognitive-behavioral techniques, mindfulness, and critical reflection. Delivered in-person in three group sessions over two months. Control group: Waitlist.	Stress (PSS) ProQOL subscales: - compassion fatigue - compassion satisfaction	There was a significant difference in outcome variable response patterns between the intervention and control groups ($p < .001$). From baseline to 8-weeks, pair-wise comparisons indicated the intervention group significantly reduced in psychological distress, $t(55) = 3.37$, $p < .01$, $d = 0.42$, and increased in compassion satisfaction, $t(55) = -3.42$, $p < .01$, $d = 0.54$. Compassion fatigue did not significantly change.	Fair
(6) Maddock et al. 2023 RCT	Baseline: 62 Post-intervention: 47 (70.1%)	Social workers, Northern Ireland	Intervention group: Received the Mindfulness-Based Social Work and Self-Care (MBSWSC) program, delivered via video conferencing over Teams, facilitated by trained social workers. Included 6 sessions of 1.5 hours over 6 weeks, with 20-30 minutes of homework 6 days a week. Control group: Active control received a three-session Mindfulness and Self-Compassion (MSC) program, with one-hour sessions fortnightly, including homework.	Stress (PSS) Burnout (MBI) subscales - depersonalisation - emotional exhaustion - personal achievement HADS - Anxiety - Depression Mental wellbeing (WEMWBS) Worry (PSWQ) Rumination (RRQ)	The intervention showed significantly greater reductions than the control in reducing stress, $F(1,56) = 9.876$, $p = 0.003$, $\eta 2 = 0.15$, and emotional exhaustion, $F(1,53) = 8.756$, $p = 0.005$, $\eta 2 = 0.142$, but not depersonalization or personal achievement. Significant group differences also favoured the intervention group in anxiety, $F(1,53) = 7.23$, $p = 0.01$, $\eta 2 = 0.11$, depression, $F(1,53) = 9.93$, $p < 0.001$, $\eta 2 = 0.15$, and worry $F(1,53) = 12.00$, $p < 0.001$, $\eta 2 = 0.17$. No significant between-group differences were found for mental wellbeing or rumination. Overall, the intervention was favourable over the active control in improving 5/9 outcomes.	Good

(7) Meier et al. 2000 RCT	Baseline: 52 Post-intervention: 19 (36.5%)	Social workers, U.S.	Intervention group: Participated in an online stress management support group facilitated by a group leader. The program was delivered over ten weeks using an early internet forum. Control group: No treatment.	OSI subscales - occupational stress - psychological strain - coping resourcefulness	There was no evidence of a statistically significant intervention effect for occupational stress, psychological strain, or coping resourcefulness. No numeric data was reported.	Poor
(8) Hosseinzadeh Asl 2022 RCT	Baseline: 59 Post-intervention: 49 (83.1%) 4 weeks: 49 (83.1%)	Social workers, Turkey	Intervention group: Received a brief mindfulness-based intervention, derived from mindfulness-based cognitive therapy, delivered online via Zoom. Included four weekly 70-minute sessions, with 10-20 minutes of meditation homework. Control group: Waitlist.	DASS-21 subscales - depression - anxiety - stress	At post-intervention, there was significant reductions in the treatment group compared to control in depression [$F(1, 46) = 7.63$, $p < .01$, $\eta 2 = .142$]. The groups did significantly differ in changes to not change in anxiety or stress. At 4-week follow up, the pattern of results was similar. The intervention group showed statistically significant reductions over the control group in depression [$F(1, 46) = 5.67$, $p < .05$, $\eta 2 = .110$]. As was the case at post-intervention, anxiety or stress did not significantly differ between groups.	Fair
(9) Pandya 2020 RCT	Baseline: 282 Post-intervention: 244 (86.5%)	Geriatric social workers across adult day care facilities in eight Asian and African cities	Intervention group: Received an online meditation training program tailored for social workers, including weekly real-time video sessions, and practiced yoga/meditation once a week. The platform used was Blackboard, and videos were uploaded for self-practice.	Job satisfaction (GJSS) Resilience (Resilience Scale)	In terms of within-subjects analyses, the intervention group significantly increased in resilience ($p = .001$, $d = 6.72$) and job satisfaction ($p = .001$, $d = 3.65$) from baseline to post-intervention, while the control group did not undergo significant changes. Between subjects at post-intervention, the intervention group had significantly higher resilience ($p = .001$, $d = 7.01$) and job satisfaction ($p = .001$, $d = 3.73$) compared to controls.	Fair

			Control group: Waitlist.		No overall Group x Time analyses were reported.	
(10) Rabin et al. 2000 Non-randomised experimental study	Baseline: 21 Post-intervention: Not reported	Occupational social workers, Israel	<u>Intervention group:</u> Participants received a multifaceted training program including psychoeducation and group supervision. The program combined psychoeducation presentations followed by Balint-style group supervision, lectures, role-playing, and case discussions. Topics included mental health problems, organisational issues, and treatment modalities. Three-hour sessions were held fortnightly for 6 months. <u>Control group:</u> No treatment.	Burnout (MBI) subscales - total burnout - emotional exhaustion - listlessness - cognitive weariness Professional social support	Limited statistical information was reported, and it was unclear whether the control group was factored into analyses.	Poor
(11) Reim Ifrach and Miller 2016 Pre-post study	Baseline: 30 Post-intervention: 30 (100%)	Domestic violence and sexual assault counsellors, U.S.	Participants engaged in one art therapy session, which was conducted in-person in groups. Counsellors created art to be added to a peace pole, which is a symbol of hope in the domestic violence community. They were directed consider themselves and their clients in the artwork.	Psychological stress (PSM-9)	There was a significant reduction in psychological stress from baseline (M = 31.8) to post-intervention (M = 23.9), $t(29) = 6.61$, $p < .001$.	Fair

(12) Trammel et al. 2021 Pre-post study	Baseline: 22 Post-intervention: 22 (with 2 HR data unviable)	Social workers, U.S.	Participants engaged in a religiously oriented mindfulness intervention, accessed online via audio files based on Mindfulness-Based Stress Reduction (MBSR) with religious elements, including prayer and guided religious visualisation. The intervention comprised 8 sessions of 20-30 minutes each.	Heart rate variability (RMSDD)	Significant reduction in personal burnout from baseline to post-intervention $t(19) = 3.95$, $p < .05$, $d = .21$. There was also significant improvement over time in heart rate variability $t(21) = -3.51$, $p < .001$, $d = 0.45$.	Fair
(13) Trowbridge et al. 2017 Pre-post study	Baseline: 33 Post-intervention: 21 (63.6%)	Pediatric medical social workers, U.S.	Participants received a compressed Mindfulness-Based Stress Reduction (cMBSR) program provided in the hospital workplace over two days. The program included instructional workshops, individual sharing time, and meditation. After the workshop, participants were instructed to practice meditation (bodyscan, walking/sitting meditation) for 20 minutes daily over 6 weeks.	Perceived stress (PSS-10) ProQOL subscales: - Burnout - Secondary traumatic stress - Compassion satisfaction	Statistical issues: participant identifiers were lost by the researchers, so the analysis was conducted with independent, rather than paired t-tests, violating the assumption of independence. This should be considered when interpreting the following results. A significant improvement was observed between pre- and post-intervention scores in secondary traumatic stress, $F = 9.792$, $p = .003$, $d = -0.89$. No significant changes were observed in stress, burnout, and compassion satisfaction.	Poor

Abbreviations: PSS = Perceived Stress Scale; MBI = Maslach Burnout Inventory; GHQ-12 = General Health Questionnaire-12; DSCQ = Demand-Control-Support Questionnaire; ProQOL-5 = Professional Quality of Life Scale Version 5; STS = Secondary Traumatic Stress; OSI = Occupational Stress Indicator; DASS-21 = Depression Anxiety Stress Scales - 21 Items; GJSS = Global Job Satisfaction Scale; PSWQ = Penn State Worry Questionnaire; RRQ = Ruminative Responses Questionnaire;; HADS = Hospital Anxiety and Depression Scale; WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale; RMSDD = Root Mean Square of Successive Differences; CBS = Copenhagen Burnout Inventory.

4.3.2 Population

Eleven studies reported on social workers (1, 2, 4-10, 12, 13) and two on counsellors (3, 11). In one study with a sample of counsellors (11), the participants also answered crisis hotlines as part of their duties, alongside seeing clients in-person. Other than this sample, no studies were identified that had evaluated a wellbeing intervention for crisis supporters. Of the seven studies that reported job tenure, participants had spent a mean of 8.3 to 12 years in their role (1-4, 7, 9, 10). For the five studies that reported hours of work per week (1, 3, 4, 7, 8), most or all participants worked full-time. No studies included volunteers.

In terms of demographic characteristics, the gender distribution of most studies was notably skewed, where most samples were over 70% female (1, 2, 4-7, 11). When reported (1-10), the mean age across studies ranged from 33 to 56 years.

4.3.3 Interventions

Seven studies employed mindfulness-based interventions; five were exclusively based on mindfulness (4, 6, 8, 12, 13) and two combined yoga and mindfulness principles (2, 9). Two studies used ACT interventions (1, 3), and two studies (5, 10) had psychoeducation interventions that included components of self-directed cognitive behavioural therapy (CBT) skills and group supervision. One study each evaluated art therapy (11) and an online stress management support group (7).

Most interventions were delivered in face-to-face groups (1-5, 10, 11, 13), while the remainder were online, using video conferencing software (6, 8, 9, 12) or a website (7). The online interventions were all published in 2020 or later, with the exception of one study (7).

4.3.4 Outcomes

The included studies assessed the following mental wellbeing outcomes: burnout (1-3, 6, 10, 12, 13) and stress (1, 4-7, 11, 13) were the most frequently examined outcomes, each measured in seven studies. Compassion satisfaction was evaluated in four studies (2, 4, 5, 13) and one study explored job satisfaction (9). Three studies reported on negative affect outcomes more broadly (1, 6, 8), two on compassion fatigue (4, 5), and two on secondary traumatic stress (2, 13).

In addition to these mental health outcomes, six studies measured mindfulness-related outcomes, specifically self-compassion (4-6, 8), psychological flexibility (4, 6, 8), emotional self-efficacy (4, 5), reflective ability (4, 5), and mindfulness more broadly (6, 12, 13). Some outcomes relating to social and professional dynamics were also measured, including professional social support (10), performance-based self-esteem (1), work environment stress (1), and caring

efficacy (13). Finally, one study measured heart rate variability (HRV) as a physiological outcome (12).

4.3.5 Quality assessment

Table 4.1 includes quality assessment ratings for the included studies. Overall, three studies achieved a quality rating of ‘good’ (1, 3, 6), seven were judged as ‘fair’ (2, 4, 5, 8, 9, 11, 12), and three were judged as ‘poor’ (7, 10, 13). Studies rated as lower quality did not meet criteria for appropriate statistical methods, had limited statistical power, did not adequately account for attrition, and relied on non-randomised groups.

4.3.6 Efficacy of interventions

This narrative synthesis reports on the characteristics and findings of interventions, grouped by therapeutic approach. Within each grouping, the details of each intervention are described, followed by findings related to the preliminary efficacy (relating to uncontrolled studies), and the efficacy (relating to controlled studies).

4.3.6.1 Mindfulness-based interventions

All mindfulness-based interventions (n = 5; 4, 6, 8, 12, 13) were evaluated within social worker populations. All interventions included practices such as meditation and breathing exercises. However, the specific content of interventions varied. For example, one program was tailored for social workers including suggestions on how to embed mindfulness in their work (6), while another was centred around Christian faith and prayer (12). Other programs (4, 13) were derived from Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 2003), and as such, had a primary focus on using mindfulness techniques for stress management.

In terms of duration, one intervention was a brief, intensive program (13), while the others (4, 6, 8, 12) spanned four to eight weeks of weekly sessions ranging from 20 to 90 minutes. Three programs (6, 8, 13) included self-directed homework, asking participants to engage in 10-30 mins of mindfulness practice outside of sessions. Three were delivered online (6, 8, 12) and two in-person (4, 13). Online programs were held over video conferencing software (6, 8) or by sharing audio files with participants (13). Of the five mindfulness interventions, three were pre-post studies without a control group, and the remaining two compared to a waitlist, and active control condition, respectively. In terms of study quality, one study was rated as ‘good’ quality (6), three as ‘fair’ (4, 8, 12), and one as ‘poor’ (13).

4.3.6.1.1 Preliminary efficacy

Regarding the three single group pre-post studies, Trammel et al. (2021; 12) evaluated the impact of a religiously oriented mindfulness intervention, notably measuring a physiological outcome, HRV, a marker of stress resilience. Post-intervention, participants reported improvements with a medium effect size in HRV (d = .45) and a small effect size for burnout (d = .21). Kinman et al. (2020; 4) found that 8 weeks after a resilience-focused mindfulness course, participants reported significantly improved compassion fatigue (d = .63), compassion satisfaction (d = .64), and stress (d = .87).

While Trowbridge et al. (2017; 13) also measured compassion satisfaction and burnout, contrastingly to Trammel et al. (2021; 12) and Kinman et al.'s (2020; 4) findings, these constructs did not improve after a MBSR program. In terms of statistically significant changes, secondary traumatic stress was reduced (d = .89), and caring efficacy was increased (d = .60).

4.3.6.1.2 Efficacy

Regarding the two studies that used RCT frameworks, Maddock et al. (2023; 6) was the only included study to use an active control group, comparing mindfulness tailored for social workers to a non-tailored mindfulness program. At post-test, the tailored intervention was superior to the active control in improving 5 of 9 measured wellbeing outcomes, specifically stress ($\eta 2$ = .15), anxiety ($\eta 2$ = .11), depression ($\eta 2$ = .15), worry ($\eta 2$ = .0.17) and emotional exhaustion ($\eta 2$ = .14). The second RCT, Hosseinzadeh Asl (2022; 8), found that social workers in the intervention group at post-test had significantly lower depression scores ($\eta 2$ = .142) compared to the control group, which remained statistically significant at 4-week follow-up (depression: $\eta 2$ = .110). However, anxiety and stress scores were not different between groups at either post-test or follow-up measurements.

4.3.6.2 Mindfulness and yoga interventions

Two studies (2, 9) evaluated mindfulness-based programs that integrated yoga in social workers. The two studies varied considerably in sample size and duration of the program, but both integrated guided yoga with mindfulness-based breathing exercises. Pandya (2020; 9) conducted an RCT with the largest sample size of the included studies (n = 282), with 40 weekly sessions over online video conferencing software. Social workers were recruited from eight Asian and African cities. Contrastingly, Gregory (2015; 2) conducted an in-person intervention in the U.S. over 3-weeks comparing a non-randomised treatment group to a no-treatment control (n = 11). Both studies were rated as 'fair' quality.

4.3.6.2.1 Efficacy

Both studies used t-tests to compare (1) between-group differences at post-test between the treatment and control groups, and (2) within-group differences between pre-test and post-test in each group. In Pandya's (2020; 9) study, the intervention group demonstrated statistically significant increases in resilience (d = 6.72) and job satisfaction (d = 3.65) from pre- to post-test, while the waitlist control group did not show changes. Further, the intervention group had significantly higher scores on resilience (d = 7.01) and job satisfaction (d = 3.73) compared to the control group at post-test. Gregory's (2015; 2) study reported no significant differences within the groups from pre-test to post-test or between groups at post-test in compassion fatigue, secondary traumatic stress, or compassion satisfaction.

4.3.6.3 Acceptance and commitment therapy (ACT)-based interventions

4.3.6.3.1 Intervention details

Two studies (1, 3) employed ACT-based interventions in social worker samples. Both were RCTs and rated as 'good' quality. The interventions focused on increasing tolerance for stressful aspects of the social worker role, using ACT protocols such as cognitive defusion, mindfulness techniques, and values clarification. Brinkborg et al. (2011; 1) evaluated the efficacy of an ACT-based stress management intervention, delivered in-person via four 3-hour workshops (n = 106). Hayes et al. (2004) conducted an RCT with three arms, each comprising a single-day workshop (n = 93). One workshop focused on ACT, another on multicultural training, and the third serving as an educational control group. While the ACT workshop was aimed at improving participant wellbeing, the multicultural and educational interventions were not.

4.3.6.3.2 Efficacy

Brinkborg et al. (2011; 1) found that compared to the waitlist control, the ACT intervention led to significant improvements in perceived stress (d = .72), general mental health (d = .50), and burnout (d = .50). However, the intervention did not produce significant differential changes in performance-based self-esteem or work-related demand and control.

Hayes et al. (2004; 3) reported mixed findings. In the between-group comparisons, ACT was favourable in reducing overall burnout, which was a composite of the emotional exhaustion and depersonalisation subscales of the Maslach Burnout Inventory (MBI), over the educational condition at post-test and compared to the multicultural training at 3-month follow-up. However, the ACT program did not significantly affect personal accomplishment, the third subscale of the MBI.

4.3.6.4 Psychoeducation interventions

Two studies evaluated psychoeducation-based interventions using non-randomised experimental designs with existing control groups (5, 10). Kinman and Grant (2017; 5) conducted three workshops for social workers in children's services in England (n = 56). The full-day sessions included psychoeducation on coping strategies, cognitive behavioural skills, and peer support. Rabin et al. (2000; 10) conducted a more extensive program with twelve 3-hour workshops in Israel (n = 21), instructing workers on common mental health problems in the workplace, and additionally, conducted group supervision sessions. Kinman and Grant (2017; 5) was rated as 'fair' quality while Rabin and colleagues (2000; 10) was scored as 'poor' quality.

4.3.6.4.1 Efficacy

Compared to controls, Kinman and Grant (2017; 5) reported significant improvements in psychological distress (d = .42) and compassion satisfaction (d = .54) in the intervention group at 8-week follow-up. The study achieved a 'fair' quality rating. In Rabin et al.'s (2000; 10) study, the treatment group reported significant reductions in three burnout subscales and a significant increase in professional social support, compared to a control group. However, it was unclear how the control group was factored into analyses, and the authors provided limited information on statistical techniques. The paper received a 'poor' quality rating.

4.3.6.5 Art therapy

Reim Ifrach and Miller (2016; 11) evaluated the impact of one session of art therapy in reducing stress using a single group pre-post design. Participants (n = 30) were domestic violence and sexual assault counsellors, and as part of their role, they answered calls to a crisis hotline. Counsellors worked on a collaborative piece of artwork related to their work and briefly spoke about the meaning of their section.

4.3.6.5.1 Preliminary efficacy

The study (11) reported a statistically significant reduction in psychological stress from baseline to post-intervention (g = 1.18). Notably, compassion fatigue was only measured at baseline. The study quality was rated as 'fair'.

4.3.6.6 Online community

Meier (2000; 7) investigated the efficacy of an online stress management support group. Social workers were randomly assigned to the online support group or to a no-treatment control group. The intervention included participation in an online forum for 10 weeks, led by a group

facilitator who encouraged them to talk about job stressors and coping strategies. This study was scored as ‘poor’ quality.

4.3.6.6.1 Efficacy

The study (7) observed no statistically significant changes in levels of stress, psychological strain, or coping resourcefulness. Engagement with the online group was low, as were follow-up rates at post-intervention (36.5%).

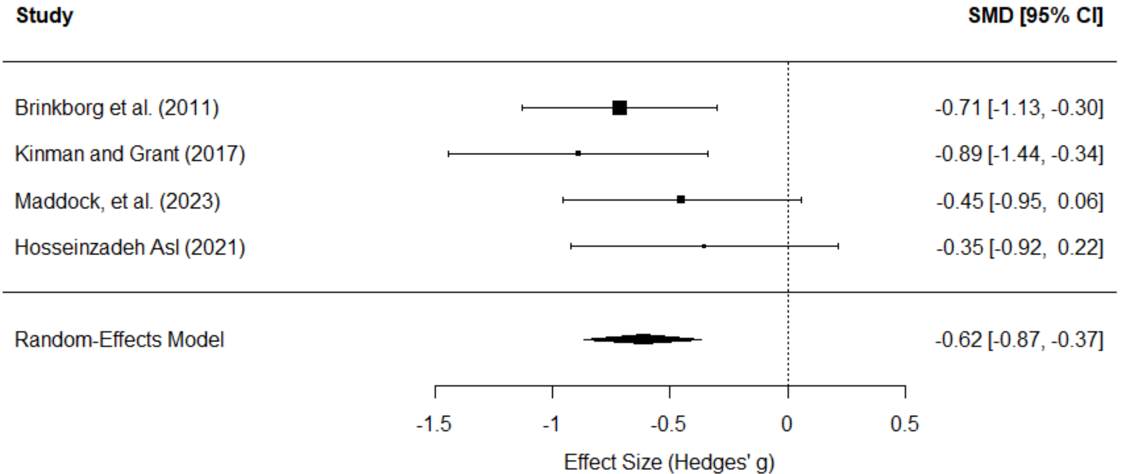
4.3.7 Meta-analysis of interventions

Of the 13 articles in this review, nine utilised a control group in their study design and were selected for inclusion in the meta-analysis. Six studies (1, 3, 5, 6, 8, 10) provided adequate data for calculation of effect sizes, and a total of nine effect sizes were calculated across these studies. Among the included studies, two evaluated ACT interventions, two evaluated mindfulness interventions, and two psychoeducation. Three were rated ‘good’ quality, two ‘fair’, and one ‘poor’. Due to the small number of studies of each intervention type, meta-analyses were conducted by synthesising effect sizes across outcomes rather than by intervention type. Meta-analyses were conducted to pool the effect sizes of outcomes that were reported in more than two eligible studies, which was the case for stress and burnout.

4.3.7.1 Overall effects on stress

Figure 4.2 presents the forest plot for stress outcomes. The pooled effect size for stress was g = -0.62 (95% CI [-0.87, -0.37]), p = .016, calculated across four studies (1, 5, 6, 8). As such, the interventions included in the analysis generally had a statistically significant and moderate effect in reducing stress. The test of heterogeneity was non-significant (Q = 2.39, p = .50), and the I^2 was 0.0% indicating very low between-study variability.

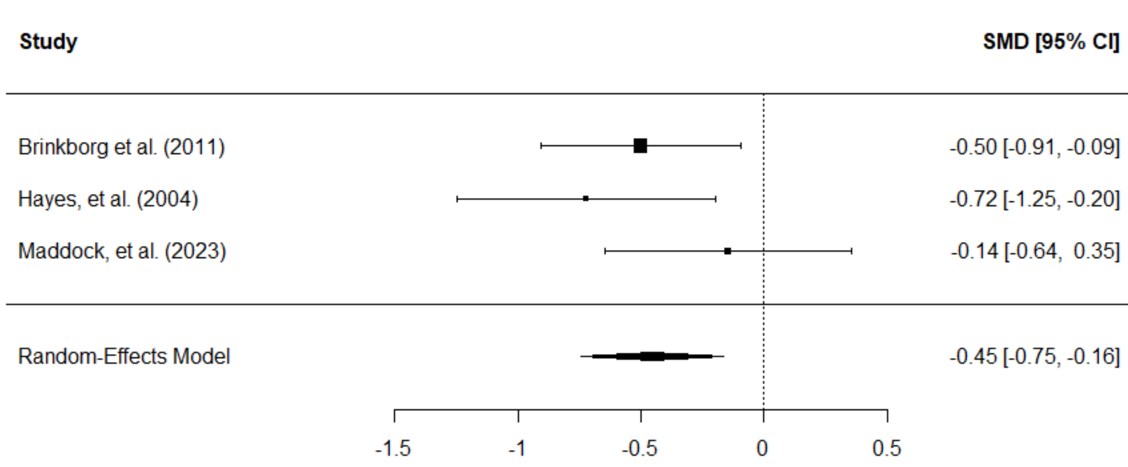
Figure 4.2 Pooled effect sizes of interventions on stress.



4.3.7.2 Overall effects on burnout

The pooled effect size for burnout was *g* = -0.46 (95% CI [-0.76, -0.16]), *p* = .003 computed across three studies (1, 3, 6). Taken together, the interventions had a significant, moderate effect in reducing burnout. The test of heterogeneity was non-significant (*Q* = 2.61, *p* = .002), and the studies showed low total heterogeneity (I^2 = 16.46%). The forest plot for the meta-analysis relating to burnout is presented in Figure 4.3.

Figure 4.3 Pooled effect sizes of interventions on burnout.



4.3.7.3 Factors associated with intervention efficacy

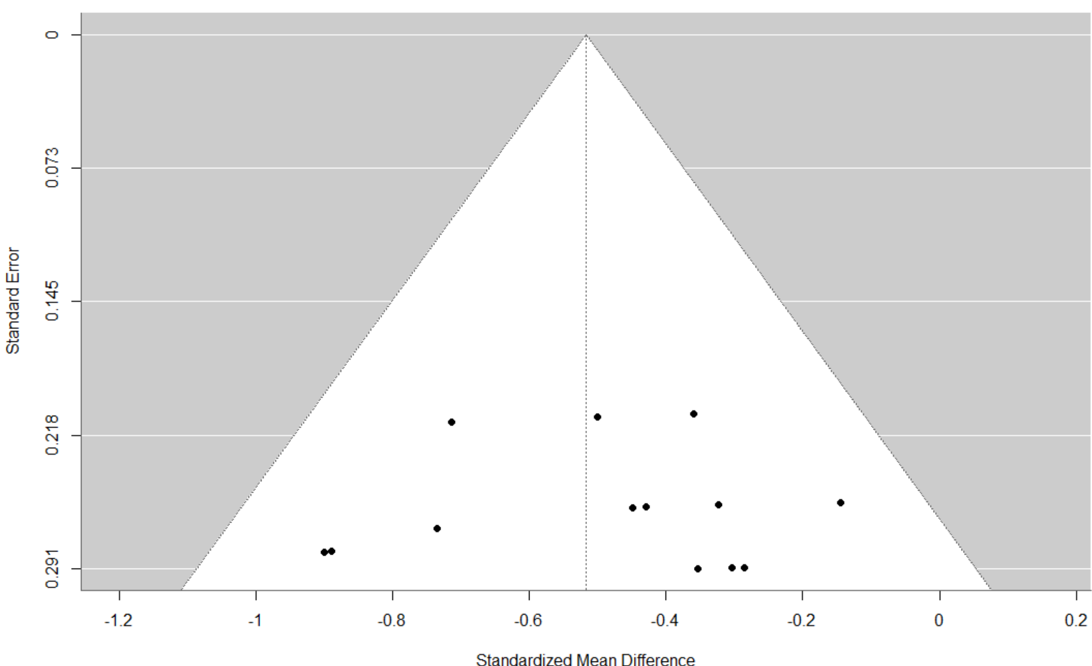
A subgroup analysis was conducted to examine whether the intervention delivery modality (online vs in-person) moderated the effect size across included studies. To facilitate the inclusion of more than one outcome per study, a three-level meta-analytic model was used. The model included 13 effect sizes across 5 studies. The outcomes included from each study in the analysis were burnout, general mental health, stress (1), burnout (3), anxiety, depression, stress (8), compassion fatigue, stress (5), anxiety, burnout, depression, and stress (6).

The test of moderation indicated a non-significant difference in efficacy when comparing online and in-person interventions (F(1, 11) = 4.67, *p* = .054). The pooled effect size for in-person interventions was *g* = -0.64 95% CI [-0.85, -0.42], while the pooled effect size for online interventions was *g* = –0.33, 95% CI [-0.01, 0.63]. The estimated variance components were $l^2_{level\ 1}$ = 97.93%, $l^2_{level\ 2}$ = 0%, $l^2_{level\ 3}$ = 2.07%.

4.3.7.4 Publication bias

Figure 4.4 displays a funnel plot with all included study outcomes included in the three-level model. Visual inspection of the plot indicated symmetry, suggesting no substantial publication bias. To further assess this, Egger's regression test was conducted, which was non-significant (QM[1] = 0.066, p = .787), supporting the absence of publication bias.

Figure 4.4 Funnel plot of the meta-analysis.



4.4 Discussion

This systematic review and meta-analysis provide a narrative and quantitative synthesis of the efficacy of wellbeing interventions for roles who provide counselling to people in mental health crisis. Of the 13 included interventions, most were grounded in mindfulness-based (n = 7) or ACT (n = 2) approaches. Interventions were predominantly conducted with social workers, and none were evaluated specifically among crisis supporter populations. The findings, nonetheless, may be useful in informing the development of intervention for crisis supporters, but also underscore the vital need for evidence-based options for this population.

The first research question examined the extent to which wellbeing interventions have been evaluated for those providing counselling to people in mental health crisis, particularly crisis supporters. The review identified only 13 studies, which were of limited quality. Most were rated as 'fair' or 'poor' quality due to small sample sizes, the lack of a control group, or the use of

unsuitable statistical techniques. For example, Gregory (2015), Pandya (2020), and Rabin et al. (2000) included control groups in their study designs, but only reported the results of within-group testing, rather than findings from between-group statistical testing using baseline scores as covariates. Only one study included participants who worked with a crisis line, and these were social workers for whom these duties were just one component of their role (Reim Ifrach & Miller, 2016). Of the 13 studies, none evaluated interventions designed specifically for crisis supporters. Given their integral role in global suicide prevention, there is an urgent need for effective supports to help crisis supporters manage occupational stressors.

With regards to the second research question, which examined the efficacy of wellbeing interventions, due to heterogeneity in study design, only six studies included a control group and were suitable for synthesis ((Brinkborg et al., 2011; Hayes et al., 2004; Hosseinzadeh Asl, 2022; Kinman & Grant, 2017; Maddock et al., 2023; Pandya, 2020). Pooled analyses indicated that interventions resulted in significant reductions in stress (g = -0.62) and burnout (g = -0.46). Although the small number of studies and heterogeneity of interventions preclude firm conclusions, the findings provide preliminary evidence that interventions improved the wellbeing of workers who provide counselling to people in crisis.

These results are consistent with the findings of Lipsa et al.'s (2024) meta-analysis of empathy-stress interventions in helping professionals, which reported a larger intervention effect (SMD = –0.95) compared to the present study, though they synthesised both compassion fatigue and secondary traumatic stress. As Lipsa and colleagues' sample was comprised predominantly of healthcare workers, the present review adds to the literature by showing that such interventions may also improve wellbeing among mental health professionals.

The third research question aimed to discern factors associated with efficacy, including therapeutic approach and delivery modality. Due to the limited number of studies from each therapeutic approach that were suitable for meta-analysis, associations with efficacy were instead examined narratively. Most studies evaluating mindfulness-based interventions reported improvements in one or more wellbeing outcomes (6/7), whether this was in RCT or pre-post designs. This finding is consistent with past systematic review findings among other helping professionals demonstrating mindfulness programs to be efficacious in reducing stress and burnout in physicians (Fendel et al., 2021), as well as anxiety and depression in nurses (Guillaumie et al., 2017). Of the mindfulness studies in the current review, three employed RCT designs, providing evidence of utility of mindfulness in improving wellbeing. However, most of the mindfulness-based studies (4/7) did not use an RCT design, so effects may not be attributed to the intervention alone.

The two studies evaluating ACT interventions showed significant reductions in burnout, with one study also reporting improvements in mental health and stress among social workers (Brinkborg et al., 2011; Hayes et al., 2004). The use of rigorous RCT methodologies in these studies, one comparing to an active control condition, strengthens the evidence for ACT as an intervention to improve these outcomes. ACT and mindfulness interventions share several aspects of their therapeutic approaches that may be particularly beneficial for roles that provide crisis counselling. In particular, they teach skills to facilitate emotional regulation and acceptance of negative feelings (Harris, 2006). Counselling people in crisis presents several stressors. It requires those in the role to sit with uncertainty regarding the fate of a client (Vattøe et al., 2020) and presents heightened emotions in the interaction, compared to non-crisis work (Carrick, 2014). The skills taught by mindfulness and ACT programs may help workers accept challenging emotions and may be why these therapeutic approaches both showed positive outcomes. While the goals of these approaches were not explicitly identified as support preferences in qualitative study in Chapter 3, their emphasis on emotional regulation and grounding aligned with coping strategies that participants described as effective for stress management.

There was weaker evidence for psychoeducation interventions, art therapy, and online communities and all studies testing these therapeutic approaches were rated as 'poor' or 'fair' quality (Kinman & Grant, 2017; Meier, 2000; Rabin et al., 2000; Reim Ifrach & Miller, 2016). However, psychoeducation approaches may align with support needs described in Chapter 3, where participants highlighted a need for greater understanding of empathy-based stress. Similarly, online communities may cater to preferences for peer connection that were identified in the thematic analysis. Summing up, while mindfulness and ACT interventions show promising evidence of benefits to wellbeing, the small number and low quality of studies using each therapeutic approach meant that definitive differences in efficacy cannot yet be established.

In terms of delivery modality, the subgroup analysis comparing the pooled effect sizes of studies with in-person interventions (n = 3) to online interventions (n = 2) found no significant differences in efficacy. Both online interventions in this analysis were mindfulness-based interventions delivered over video conferencing software (Hosseinzadeh Asl, 2022; Maddock et al., 2023). The findings of the analysis contrasted with those from Lipsa et al.'s (2024) meta-analysis, which found that online interventions were more effective than in-person interventions in reducing empathy-based stress. Regardless, the results of the current study suggest that both in-person and online modalities may show efficacy in improving wellbeing, though only a small number of studies were suitable for the subgroup analysis.

In summary, this review uncovered a clear gap: there is a scarcity of evaluated wellbeing interventions for crisis supporters. Nonetheless, evidence from interventions delivered to other roles who provide counselling to people in crisis suggests that certain approaches can improve wellbeing. This chapter contributed to the *Discover* phase of the Appreciative Inquiry framework and identifies evidence-based interventions evaluated in comparable professions that could inform support for crisis supporters. As explored in **Chapters 2** and **3**, the crisis supporter role is unique: they are primarily volunteers, who support remote help-seekers who are often anonymous, and encounter several challenging caller presentations. The absence of studies focused on supporting this workforce highlights a critical need for the development of wellbeing interventions tailored to their distinctive context.

4.4.1 Strengths and limitations

Several reviews have focused on outcomes specific to this workforce, such as vicarious trauma or compassion fatigue. A strength of the current review is that the search strategy included a wide variety of wellbeing-related outcomes that have been omitted by other reviews, and that may be important targets for intervention. Additionally, this review includes one of the only meta-analyses of wellbeing interventions for helping professionals, pooling effect size estimates across multiple studies for higher precision.

This review also has several limitations. Firstly, the meta-analytic models were based on a small number of studies. Conducting quantitative synthesis with few studies can result in imprecise pooled estimates, limiting the reliability and generalisability of the findings (Higgins et al., 2024). Secondly, as the meta-analyses were grouped by outcome, heterogenous interventions with varied control conditions were pooled, which limits the strength of conclusions that can be drawn about any specific intervention type. This field of research would benefit from greater consistency in the use of robust study designs (e.g., RCTs) and comparable outcomes.

Another limitation was the exclusion of grey literature, which may have introduced a risk of publication bias. Although the studies included in the meta-analysis did not show evidence of publication bias (see Figure 4.2), it can lead to overestimations of intervention efficacy. To mitigate this risk, future reviews should consider including grey literature as it has been omitted in several recent reviews (Bercier & Maynard, 2015; Lipsa et al., 2024). Nonetheless, prioritising peer-reviewed studies strengthened the scientific foundation of the present review.

4.4.2 Conclusion

The wellbeing of people who are paid or volunteer to support people in crisis is paramount yet often overlooked in research. In line with this, there was an absence of interventions tailored for crisis supporters and studies among counsellors and social workers were limited in volume and quality. It was difficult to draw firm conclusions as to the efficacy of included interventions due to heterogeneity of studies. However, the meta-analysis in this study offers a significant contribution to the literature, finding that interventions were generally effective in improving stress and burnout in this population, and that online interventions did not differ in efficacy compared to in-person interventions. Several therapeutic approaches appeared promising, though their comparative efficacy was not evident from findings.

The current findings provide valuable insights to inform the development of wellbeing interventions for crisis supporters. Addressing this gap is crucial to ensure crisis support work is sustainable. The subsequent chapter uses the results of this systematic review and meta-analysis, alongside findings from **Chapters 2** and **3**, to inform the first documented development of a wellbeing intervention for this population.

Chapter 5

Co-design and preliminary evaluation of a prototype wellbeing intervention for crisis supporters

Abstract

Background: The preceding chapters identified key challenges to crisis supporter wellbeing and highlighted an absence of wellbeing interventions for this population. This study aimed to co-design, develop, and preliminarily evaluate a prototype wellbeing intervention tailored for this workforce. *Method*: An Advisory Group of crisis supporters and managers (n = 8) participated in three co-design meetings over five months. Through collaborative activities, Advisory Group members identified priorities for support and provided iterative feedback on intervention materials. In the third meeting, members reviewed a prototype of the wellbeing intervention developed by the candidate, informed by the co-design process and earlier chapters. *Results*: The co-design process successfully guided the development of a tailored, digital intervention for crisis supporters. The developed prototype (*Refill Your Cup)* was built using WordPress and incorporated three core components: an Acceptance and Commitment Therapy (ACT) learning program, psychoeducational factsheets, and grounding exercises. Participants endorsed the program's relevance and accessible design, particularly valuing its focus on practicality and applicability within shifts. Minor improvements were suggested, including enhanced interactivity and a reduced volume of text. Quantitative ratings indicated very high perceived acceptability, appropriateness, and feasibility scores. *Conclusion:* This study demonstrated that crisis supporters view a co-designed, tailored wellbeing program as both relevant and feasible. The *Refill Your Cup* prototype represents a promising foundation for future refinement and large-scale evaluation of digital wellbeing interventions for this workforce.

5.1 Introduction

The preceding three empirical chapters of this thesis have highlighted the need for wellbeing interventions to address a gap in available supports for crisis supporters. The quantitative survey conducted in **Chapter 2** identified the most prevalent occupational stressors experienced by this population and investigated levels of wellbeing. While a third of the sample reported high compassion satisfaction, one in five were experiencing high compassion fatigue and one in three high psychological distress. **Chapter 3** extended these findings through a qualitative investigation, where crisis supporters described feeling satisfaction in helping others, stressors and costs of caring, coping strategies, navigating new work trends, and preferences for receiving support. **Chapter 4** found a notable absence of interventions targeting crisis supporters in a systematic search of the literature. Together, these empirical chapters underscore a critical gap in research and in practice. Despite a clear need for initiatives to support this key workforce, no studies have documented the development or evaluation of wellbeing interventions for crisis supporters.

Regarding the Appreciative Inquiry framework guiding this thesis, **Chapters 2-4** contributed to the *Discovery* phase, which involves gathering information about a problem, its context, and identifying existing strategies that may be successful. Findings from the meta-analysis conducted in **Chapter 4** demonstrated that interventions can improve wellbeing in roles who provide counselling to people in crisis. This evidence suggests that adverse effects on wellbeing from crisis work may be related not only to coping strategies, as identified in **Chapter 2**, but also be mitigated by structured interventions. Specifically, the meta-analysis synthesised effects of interventions including ACT ($n = 2$), mindfulness ($n = 2$), and psychoeducation ($n = 2$), finding associations with reductions in stress ($g = -0.62$) and burnout ($g = -0.46$).

The quantitative and qualitative investigations conducted within **Chapters 2 and 3** also revealed idiosyncrasies of the crisis support role. Crisis supporters receive a particularly high proportion of contacts that are suicidal, which may result in traumatic exposure and resultant empathy-based stress (Aldrich & Cerel, 2020; Rauvola et al., 2019). These demands are faced by a workforce of whom the majority are volunteers (59.2% in **Chapter 2**), often have limited mental health training, and lack access to the support structures available to registered helping professionals (Gilmore et al., 2022). Unlike many helping professionals, crisis supporters provide technology-based support and may work from home, with survey participants in **Chapter 2** reporting that one in three hours were conducted remotely. This unique occupational context, uncovered in the *Discovery* phase, warrants the development of a targeted wellbeing program tailored to crisis supporters and the conditions in which they work. Seeking to address

this gap, this chapter describes the process by which an intervention for crisis supporters was developed and report on preliminary findings related to its acceptability, appropriateness, and feasibility.

The current chapter fits within the *Dream* and *Design* phases of the Appreciative Inquiry framework. In the *Dream* phase, ideal approaches to solve a problem, as envisioned by end-users, are identified. This was partially addressed by the qualitative investigation in **Chapter 3,** where crisis supporters were asked about support preferences, and is extended in the present chapter. The *Design* phase concerns the development and refinement of intervention materials, which is a focus of this chapter.

Co-design, where end-users are meaningfully involved in research, is often applied within *Dream* and *Design* as the phases have a focus on centering participants in development (Slattery et al., 2020; Snijder et al., 2021; Trajkovski et al., 2013). Interventions developed with, rather than for, their end-users are regarded as the gold-standard by government research bodies and researchers (Benz et al., 2024; National Health and Medical Research Council, 2016; Slattery et al., 2020). A rapid overview of reviews investigating research co-design in health concluded that co-design processes increase the specificity, acceptability and relevance of research outputs (Slattery et al., 2020). In summary, involving crisis supporters through co-design is key to increasing the likelihood that any intervention caters to their needs.

The acceptability, appropriateness, and feasibility of interventions are critical for their effective implementation and sustainability in real-world settings (Wesolowicz et al., 2025). As defined by Weiner et al. (2017), acceptability refers to the degree that an intervention is seen as satisfactory, appropriateness is its perceived fit for a certain setting or population, and feasibility is the practicality of implementing an intervention within existing constraints or resources. Evidence indicates that co-design processes can enhance these factors (Brotherdale et al., 2024; Slattery et al., 2020).

In this chapter, co-design was operationalised through consultation with an Advisory Group, a commonly used participatory methodology (Peters et al., 2024). Advisory Groups are structured panels of potential end-users who contribute to the planning or undertaking of research (Domecq et al., 2014). Provided the group members are involved from early stages of the project, this methodology can grant end-users agency in determining the direction of research (Slattery et al., 2020). To satisfy this requirement, an Advisory Group was involved in the project from the inception of intervention design.

In collaboration with an Advisory Group, this study aimed to:

i) co-design a wellbeing intervention tailored for crisis supporters,
ii) develop a prototype of the wellbeing intervention, and
iii) undertake a preliminary evaluation of its acceptability, appropriateness, and feasibility.

5.2 Methods

5.2.1 Overall design

An Advisory Group was convened for three meetings to co-design a wellbeing intervention (aim i). In parallel, the candidate developed a prototype intervention (aim ii), drawing on outputs from the Advisory Group and findings from earlier chapters. In Meeting 3, members participated in a preliminary evaluation of the prototype, providing feedback and completing a brief survey (aim iii). Ethical approval was obtained from the University of Sydney Human Research Ethics Committee (protocol number: 2024/HE001128). The following subsections detail the recruitment process, participants, and procedure.

5.2.2 Recruitment

Recruitment was conducted through email communications distributed internally at two of the largest Australian crisis helpline organisations, calling for expressions of interest (EOIs) for the Advisory Group. To be eligible, members had to be: i) aged 18 years or older, ii) a current volunteer or staff member at an Australian crisis helpline, and iii) delivering crisis support or managing crisis supporters as part of their current role. The EOI requested information relating to applicants' age, state of residence, gender, organisation, employment status (volunteer, paid, or both), role, delivery method of crisis support (phone-based, chat-based, or both), average weekly hours, and tenure at organisation.

Twenty-four EOIs were received, from which nine people were invited to participate in the Advisory Group. This group size is similar to Benz et al.'s (2024) study, which was reported as an adequate number to balance capturing multiple viewpoints, while remaining small enough for participants to feel comfortable sharing.

5.2.3 Participants

Nine participants were invited, chosen so that the Advisory Group profile broadly mirrored that of the survey sample (n = 422; **Chapter 2**). They were contacted via email, informed about the study, and advised they would receive a $110 voucher per meeting in recognition of their time

and expertise. All nine accepted and provided informed consent. Participants were purposefully selected for inclusion so that the Advisory Group closely aligned with the wider survey sample in age, gender breakdown, average weekly hours, and proportion of volunteers. However, it included more chat-based crisis supporters, valued for their perspective on emerging modalities, and management for their insights as decision-makers. Table 5.2 provides a summary of group characteristics.

5.2.4 Procedure, data collection, and synthesis

5.2.4.1 Co-design process with the Advisory Group

The Advisory Group participated in three structured Zoom meetings held over a five-month period, each lasting approximately two hours. Meetings occurred approximately 10 weeks apart to allow time for the candidate to collate and analyse outputs and incorporate feedback into the prototype intervention. This overall process was designed to support iterative co-design with each meeting building on the outputs of the previous session. The goal of this process was communicated to participants in Meeting 1 as follows: *Alongside volunteers and workers, we aim to design a wellbeing program that i) helps crisis supporters cope with stressful parts of their role, ii) reduces compassion fatigue and psychological distress, and iii) crisis supporters want to use.*

The agendas and aims of each meeting are described in Table 5.1. All meetings were facilitated by the candidate, who moderated discussion, ensured equitable participation, and coordinated collaborative activities. Collaborative activities were conducted using the online software, Mural (Mural, 2022). This platform allowed Advisory Group members and the candidate to work together in real-time using a visual interface. The candidate designed a template for activities in advance, which were populated during the meetings by participants adding sticky note icons containing ideas, preferences, or feedback. Each activity, which was conducted during 5-10 minutes of 'focus time', was followed by discussion where participants talked about their contributions or contributions from other members.

The aims of each meeting were as follows. Meeting 1 contributed to the *Dream* phase by identifying ideal support options, as well as priorities relating to five intervention types. The five intervention types put forward to the Advisory Group were ACT, mindfulness, and psychoeducation for their efficacy in **Chapter 4**, skills-based coping training, as coping strategies were associated with wellbeing in **Chapter 2**, and screening with feedback, as it was suggested by interviewees in **Chapter 3**. Meeting 2 refined these priorities into concrete learning objectives and mapped them to preferred delivery modalities and timings of use. As such, a shortlist of potential intervention components was produced. Meeting 3 focused on preliminary evaluation of a developed prototype wellbeing intervention, where members

provided qualitative feedback and quantitative data on its acceptability, appropriateness, and feasibility.

Table 5.1 The agendas and aims of the three Advisory Group Meetings.

Meeting	Agenda (including collaborative activities)	Aims
1	i) Candidate introduces the project and definition of key concepts, including co-design. ii) Members identify stressors to establish a shared understanding of challenges. iii) Members discuss current ways of coping before, during, and after shift, and ideal supports. iv) Candidate describes the five key intervention types, which are then ranked by participants.	Identify current coping strategies, as well as ideal support options. Determine preferences relating to five types of interventions.
2	i) Candidate presents a summary of Meeting 1 findings. ii) Members generate desired learning objectives for an intervention. iii) Members discuss preferred timings of program use. iv) Members map learning objectives to timings and preferred delivery modalities. v) Members generate barriers and facilitators to program use.	Align learning objectives with preferred timings of use and delivery modalities. Identify potential barriers and facilitators to use.
3	i) Members are given time to engage with the wellbeing intervention prototype. ii) Members provide qualitative feedback on two draft factsheets, regarding their content, user interface, and usefulness. iii) Members vote for the most useful factsheet topics, from ten options informed by learning objectives. iv) Members provide qualitative feedback for the draft ACT learning program regarding its content, user interface, and usefulness. v) Members give qualitative feedback for the overall intervention prototype (i.e., positive impressions, negative impressions, novel suggestions). vi) Members complete the quantitative brief online survey (subsection 5.2.4.3)	Obtain qualitative feedback on factsheets, ACT learning programs, and overall prototype. Collect quantitative acceptability, appropriateness, and feasibility data.

Data were collected from the Advisory Group meetings in several ways. Firstly, the Mural frameworks, once populated from the collaborative activities, were saved as visual outputs at the conclusion of each meeting. Any identifying information about group members was removed by the candidate after the meetings. The audio of each Zoom meeting, except for the second meeting due to human error, was recorded and then transcribed into text using Zoom's automated transcription feature. The candidate reviewed each transcription to correct any errors (e.g., misheard words or missing words) and remove identifying information about participants or organisations. The Zoom chat log was also saved.

5.2.4.2 Development of the wellbeing intervention prototype

Between Meetings 1 and 2, the candidate synthesised Meeting 1 outputs into a summary and drafted prompts (potential timings and modalities) to structure the next co-design activities. Between Meeting 2 and Meeting 3, the candidate developed a prototype of the wellbeing program in consultation with the supervisory team, which was informed by the co-design process, alongside insights from **Chapters 2–4**. The development process is described in the results.

5.2.4.3 Preliminary evaluation of acceptability, appropriateness, and feasibility

Preliminary evaluation of the prototype intervention was undertaken during Meeting 3, using both qualitative and quantitative methods. First, qualitative data were gathered through the collaborative activities that are detailed in Table 5.1. Briefly, these activities sought feedback on the content and user interface of key intervention components and the overall prototype.

Secondly, members completed a brief online survey to quantitatively evaluate the prototype. The first section of the survey contained three short measures developed by Weiner et al., 2017) These were the Acceptability of Intervention Measure (AIM), the Intervention Appropriateness Measure (IAM), and the Feasibility of Intervention Measure (FIM). Each measure contains four items rated on a 5-point Likert scale, with higher scores indicating more favourable perceptions of the intervention. Weiner and colleagues (2017) conducted three studies in the original validation paper, demonstrating that the measures have adequate substantive validity, structural validity, test-retest reliability, and sensitivity to change in populations including counsellors. The survey was conducted on the online platform Qualtrics.

To evaluate the prototype intervention, qualitative data from Meeting 3 was summarised in a narrative synthesis and considered alongside quantitative data from the brief online survey. Survey data were exported from Qualtrics and descriptive statistics were obtained using the *summarytools* package (Comtois, 2019) in R version 4.3.1 (R Core Team, 2023).

5.3 Results

This section first provides a description of the characteristics of those in the Advisory Group. To address the first aim, a narrative synthesis of the Advisory Group meetings and co-design process is provided. To address the second aim, the development of the prototype wellbeing intervention is described. Finally, regarding the third aim, the results of a preliminary evaluation of the prototype are presented.

5.3.1 Characteristics of Advisory Group members

Eight members attended at least one Advisory Group meeting, with attendance reducing with subsequent sessions (Meeting 1: n = 8; Meeting 2: n = 6, Meeting 3: n = 5). One member who consented did not attend any meetings. The mean age of attendees was 35.5 years (*SD* = 12.7) and they were geographically dispersed across four Australian states. The Advisory Group was mostly female (n = 5, 62.5%). In terms of work-based characteristics, the group had relatively even representation from crisis supporters who were telephone-based (n = 3, 37.5%), chat-based (n = 3, 37.5%), or both (n = 2, 25.0%), paid staff (n = 4; 50.0%) or volunteers (n = 4; 50.0%). The group included relatively inexperienced crisis supporters (<1 year; n = 2; 25.0%), as well as those with longer tenure (1–2 years: n = 3; 37.5%; 3–5 years: n = 3; 37.5%) but none with more than five years of experience. As was planned, the group was mainly crisis supporters (n = 5; 62.5%) but also included managers (n = 2; 25.0%), and one member who worked both roles (n = 1; 12.5%). The full breakdown of participant characteristics is described in Table 5.2.

Table 5.2 Characteristics of Advisory Group attendees.

Characteristic	Descriptive statistics (*n*=8)	
	n	%
Gender		
Female	5	62.5
Male	2	25.0
Non-binary	1	12.5
State		
New South Wales	3	37.5
Western Australia	2	25.0
Queensland	1	12.5
Victoria	2	25.0
Employment status at organisation		
Paid	4	50.0
Volunteer	4	50.0
Role at organisation		
Providing crisis support	5	62.5
Management	2	25.0
Both	1	12.5
Modality		
Telephone only	3	37.5
Chat only	3	37.5
Both	2	25.0
Experience as crisis supporter		
Less than 1 year	2	25.0
1–2 years	3	37.5
3–5 years	3	37.5
Hours per week		
0–5 hours	3	37.5
10–20 hours	1	12.5
20–30 hours	1	12.5
30 hours or more	3	37.5

5.3.2 Co-design process with the Advisory Group

The first aim was to co-design a wellbeing intervention for crisis supporters. The aim was addressed by findings from Advisory Group Meetings 1 and 2, which were collated with findings from the earlier *Discover* and *Dream* phases to inform intervention design.

5.3.2.1 Stressors (Meeting 1)

Members began by noting and discussing challenging aspects of their role, to provide context for subsequent activities. Concerns around crisis work included difficult caller profiles (e.g., frequent, abusive, or sexually inappropriate callers), high-risk interactions where the caller hangs up or there is emergency services intervention, or callers expecting support that the crisis supporter cannot provide (e.g., practical advice, to fix their problem). Other stressors were related to difficulties with supervision (e.g., differing opinions or communication style) or with the working environment (e.g., technological issues, noisy workplace, high performance expectations). These discussions were used to ground the group in a shared understanding of work demands before progressing to solution-focused activities.

5.3.2.2 Existing ways of coping: Before, during, and after shift (Meeting 1)

Members used a range of coping strategies to prepare for work. Several participants (n = 5) included meditation practices in their routine, including mindfulness, breathing exercises, prayer and self-compassion. Others (n = 3) used their commute, scheduled preparation time, had a tea, or chatted with supervisors as transitory periods between their outside life and the shift. Some (n = 3) mentioned making sure they were adequately rested or fed before work, particularly for night shifts. Two members mentioned using music as a tool to get in the right headspace or talked with friends or family.

During shift, breaks were frequently noted as an important way to regulate emotion and cope with work-related stress, particularly after intense interactions. Ways to spend breaks were to drink water or tea (n = 4), move the body (n =3), journalling (n = 1), or conduct breathing exercises (n = 3). Several members of the group noted the importance of debriefing with supervisors (n = 4) and connecting with other crisis supporters (n = 2). One member suggested switching from providing support over phone to supporting over chat to cope with stress, while another suggested only taking one chat interaction at a time, as opposed to two simultaneously.

Post-shift, several coping strategies were used to manage stress. Several members planned social contact directly after shifts (n = 4). If they felt if it was necessary to debrief, they would meet with a supervisor (n = 2) or alternatively, note difficult interactions to take to their next scheduled supervision (n = 2). Otherwise, participants noted it was important to prioritise rest

and relaxation (n = 4), achieved through spending time alone, interacting with pets, walks in nature, and 'switching off'. Finally, two participants reported engaging in self-compassion and meditation practice.

5.3.2.3 Desired support options: Before, during, and after shift (Meeting 1)

For the activity focused on desired support options, as well as contributing their own ideas. Participants also organically began using the 'like' feature to endorse others' suggestions. Relating to coping with stress before shift, four members noted that they wanted to engage with other crisis supporters (rather than supervisors or managers) pre-shift to talk about topics both related and unrelated to work. These notes were 'liked' by 4-5 other group members. Two members added topics about fitness or wellbeing initiatives; one asked for discounts to health or fitness products (4 likes) and the other requested an onsite gym or meditation space for the beginning of shift. Finally, two added notes related to supervision, one indicating that they wanted more validation for support seeking from supervisors (2 likes) and the other indicating that they would like 30 minutes of fortnightly supervision.

During shift, members identified several support initiatives they would like access to. One group member suggested having ready-made activity lists for breaks (5 likes), as it was mentioned that it was hard to decide what to do while in a heightened state after a difficult call, while another wanted encouragement to take breaks. Another participant suggested mandatory grounding exercises (4 likes). Participants nominated other initiatives, including mentorship programs (2 likes), higher focus on crisis supporter wellbeing over the number of calls taken, and healthier food in common areas (2 likes). Two members expressed interest in a higher degree of supervisory engagement, including regular scheduled check-ins.

In relation to after shift, members provided several suggestions to support wellbeing through more opportunities to debrief, whether this was formal or informal. Relating to formal debriefing, one member wanted in-person staffing to support post-shift (4 likes). One member wanted opportunities to informally debrief with peers. Similarly, a member suggested an online moderated forum for crisis supporters to discuss calls and their practice with one another. Another suggested wellbeing activities to be conducted as a team, such as yoga (2 likes). Finally, one member wanted a guide that recommended ideas on what they could do after shift to support wellbeing. One suggestion (4 likes) requested a reframing in organisational culture that seeking support is normal, as the job is inherently difficult.

5.3.2.4 Preferential ranking of potential intervention components (Meeting 1)

Members of the Advisory Group provided rankings for five potential components of the proposed wellbeing program. The highest ranked, on average, was ACT (*M* = 1.62, *SD* = 0.52) while the other four components had relatively similar mean rankings. The second highest preferred component was mindfulness (*M* = 3.00, *SD* = 1.69), followed by psychoeducation (*M* = 3.13, *SD* = 1.13), skills-based coping training (*M* = 3.38, *SD* = 0.74). Screening and personalised feedback was ranked least favourably overall, with a mean ranking on 3.88 (*SD* = 1.81). The full rankings can be found in Table 5.3.

Table 5.3 Preferential rankings of potential intervention components.

Advisory Group member	Acceptance and Commitment therapy	Skills-based coping training	Mindfulness	Screening and personalised feedback	Psychoeducation
	Ranking of intervention components[a]				
Member 1	2	3	4	5	1
Member 2	1	3	4	5	2
Member 3	1	3	2	5	4
Member 4	1	5	2	4	3
Member 5	2	4	5	1	3
Member 6	2	3	5	1	4
Member 7	2	3	1	5	4
Member 8	2	3	1	5	4
M (SD)	1.62 (0.52)	3.38 (0.74)	3 (1.69)	3.88 (1.81)	3.13 (1.13)

[a] A score of 1 indicates the most preferred intervention component, while a score of 5 was least preferred.

5.3.2.5 Objectives to gain or learn from the program (Meeting 2)

Group members were asked what they would like to gain or learn from the program. They generated 25 ideas. From these, the 15 most preferred learning objectives were selected by the Advisory Group, in the interest of time, for further discussion. The excluded ideas are listed in **Appendix F**. These objectives were grouped by the candidate into three categories: i) emotional regulation and reflection (e.g., strategies to manage overwhelm, self-reflection prompts), ii) physical practices (e.g., breathwork, neck/shoulder exercises), and iii) restorative break activities (e.g., short creative tasks, self-care checklist). The categories and corresponding 15 priority learning objectives are outlined in Table 5.5.

5.3.2.6 Preferred times to engage with the program (Meeting 2)

Participants voted on potential times to use the wellbeing program, seven of which were generated by the candidate ahead of the meeting to prompt discussion and five which were suggested by group members (Table 5.4). In summary, these responses reflect a general

preference to engage with a wellbeing program during shifts, so it is integrated within the flow of work, particularly while preparing for the start of shifts or when between interactions, rather than outside of work hours. These findings emphasise preferences for program components that can be flexibly accessed throughout the shift and embedded into work routines.

Table 5.4 Group member voting results on potential times to use the wellbeing program.

Proposed time to use wellbeing program	Positive votes	Neutral votes	Negative votes
Times suggested by the candidate			
At work (when not taking calls)	6	0	0
During shift (to assist while taking calls)	5	0	1
Right before shift	5	1	1
During commute	2	0	2
During professional development hours	3	0	3
Right after shift	2	0	4
In my own time	1	0	4
Times suggested by group members			
During training	3	1	1
Between calls	1	0	0
Beginning of shift (first 5-10 mins)	2	0	0
During group supervision	3	0	1
During supervision	1	0	0

5.3.2.7 Grouping objectives with timing and modality (Meeting 2)

Participants grouped each of the 15 learning objectives (subsection 5.3.2.5), with timings of use (subsection 5.3.2.6), as well as delivery methods that they felt were appropriate for the specific objective. Twelve options of delivery methods were provided for group members to choose from, and members suggested three additional options. A list of all delivery methods is available in **Appendix G**.

The timings most frequently grouped with objectives were 'at work (between interactions)' (11 mentions), 'post-shift' (6 mentions), and 'during work (to assist with interactions)' (4 mentions). The most frequently suggested modalities were interactive online resources (8 mentions), factsheets (7 mentions: 4 printed, 3 online), and online surveys (3 mentions).

Notably, 14 of the 15 objectives were deemed achievable with online delivery methods, with factsheets and interactive resources the most favoured. In line with previous timing preferences, members indicated a preference for accessing nearly all types of supports during shifts, whether these were related to emotional regulation and reflection, physical practices, or break activities. A key output of Meeting 2 was a collaboratively designed list of potential learning objectives, with preferred timings and delivery methods. This list is presented in Table 5.5.

Table 5.5 Objectives grouped with preferred timings of use and delivery methods.

What would you like to gain or learn from the program?	What times would you like to use this program?	List of modalities
Emotional regulation and reflection		
Space to check in with self/tool to help counsellors reflect	At work (between interactions); in supervision	Interactive online resource; online survey
A prompt to reflect on how you are feeling during the shift	At work (when needed on shift); supervision after a difficult call	Online survey; factsheets (printed); website-based
A feelings temperature gauge (to check how you are feeling before/during/after a call)	At work (between interactions)	Factsheets (printed); interactive online training; website-based
Validation that support is necessary (rather than conditional)	Appropriate at all times, but method of communication will vary	Interactive online resource; factsheets (printed); online survey; website-based; embedded across all modalities
A set of steps to do when feeling overwhelmed	During work (to assist while taking calls); at work (between interactions); post-shift; pre-shift	Factsheets (printed); factsheets (online)
A quiz that ends in a recommendation for your self-care	Appropriate at all times; at work (between interactions); post-shift	Interactive online resource
A resource that sends prompts tailored to individual needs with opt-in/out options	At work (between interactions); post-shift; pre-shift	Interactive online resource
A guided positive self-talk/ validation/grounding audio	At work (between interactions); post-shift; pre-shift	Interactive online resource; online audio
Physical practices		
Pop-up prompts for neck/shoulder exercises during shift	At work (between interactions); beginning of shift (first 5–10 mins)	Interactive online resource
Prompts for breathwork during shift/after calls	At work (between interactions); during work (to assist while taking calls)	Interactive online resource; digital prompt with suggestions for different types of exercises
Grounding exercises	Commute; pre-shift; post-shift; during work (to assist while taking calls)	Informational videos; podcast; group supervision
Options for things to do when you need a break from counselling for 30 minutes	Post-shift; at work (between interactions)	Factsheets (online)
Restorative break activities		
A short activity to do between calls (e.g., simple puzzle, hand-building activity)	At work (between interactions)	Interactive online resource
A short creative activity (e.g., draw a flower in a cup)	During work (to assist while taking calls); at work (between interactions)	In-person materials
List of self-care activities to do post-shift	At work (between interactions); post-shift	Factsheets (printed); factsheets (online)

Note. Where applicable, contributions by participants were corrected to amend typographic errors.

5.3.2.8 Barriers and facilitators (Meeting 2)

Advisory Group members were asked to generate barriers and facilitators for crisis supporters using a wellbeing intervention. Contributed barriers and facilitators were synthesised into four themes which can be seen in Table 5.6. The full list can be viewed in **Appendix H**.

Table 5.6 Barriers and facilitators to use of a wellbeing intervention among crisis supporters.

Theme	Facilitators	Barriers
Time and workload	Willingness to "make time" if the program is embedded into organisational culture	Time-poor; workload pressure; fear of not meeting shift targets; micromanagement
Organisational culture	If supervisors use it too (modelling); normalised as daily practice; less reactivity, more proactivity around wellbeing; strengths-based and connects with purpose	Perceptions that help-seeking might signal poor performance or inability to cope; organisation is 'ticking a box' to satisfy wellbeing requirements
Perception of effectiveness	Program is evidence-based; evaluation shared with end-users	Program is too broad to be relevant to an individual
Preferred delivery methods	Tangible formats (e.g., printouts); interactive or gamified; visible prompts during shift; facilitates in-person connection	Technology difficulties; not understanding how to use the tool

5.3.3 Development of the wellbeing intervention prototype

The second aim was to develop a prototype of the wellbeing intervention. Evidence from the *Discover* and *Dream* phases of the Appreciative Inquiry framework informed key decisions made in prototype development. The *Discover* phase functioned as an information gathering stage, drawing on findings from **Chapters 2–4** to understand role-related stressors, current coping strategies, and interventions that may improve crisis supporter wellbeing. The *Dream* phase built on this by finding 'ideal' forms of support, informed by Advisory Group Meetings 1 and 2 in the current chapter, as well from the final research question in **Chapter 3**. By consolidating these findings, key decisions were made, specifically for an i) online intervention, ii) with a multicomponent design, iii) integrating aspects of ACT, psychoeducation, and grounding. The rationale for these decisions is outlined below.

5.3.3.1 Decision to deliver an online intervention

An online mode of delivery was selected for the intervention. This modality was informed by the evidence base, participant preferences, and suited operational requirements. In terms of empirical evidence, the meta-analysis presented in **Chapter 4** compared online and in-person interventions delivered to workers in roles comparable to crisis supporters. Subgroup analyses indicated that digital interventions (n = 2) demonstrated overall efficacy in improving wellbeing

outcomes (g = –0.33; pooled across stress, burnout, anxiety, and depression) and did not differ in effect size from in-person interventions (n = 4). Although the two online studies synthesised in the meta-analysis evaluated videoconferencing-based mindfulness programs (Hosseinzadeh Asl, 2022; Maddock et al., 2023), rather than website-based interventions, these findings nevertheless suggest that online modalities show promise for the current population.

Participants also indicated that an online intervention suited their preferences for use. In consultations with Advisory Group members, almost all learning objectives (14/15) were preferred to be addressed using online modalities (see Table 5.5). Regarding timing of use, members expressed a clear preference for using an intervention within the workflow of a shift, rather than outside of work. Crisis supporters already interface with online systems during shifts (typically 3–4 hours), and an online format may therefore offer an optimal platform for delivering shorter, modular versions of the longer wellbeing interventions identified in **Chapter 4**, which were primarily developed for salaried mental health professionals.

Insights from the *Discover* phase indicated that an online format also aligns well with the working environment of crisis supporters. Online resources are accessible for the geographically dispersed workforce, with the location of crisis support centres varying from metropolitan to remote areas. For example, in the **Chapter 2** survey, one in five crisis supporters worked in regional, rural, or remote areas. Online resources are also suitable for diverse patterns of work identified in the survey findings: one-third of hours were completed remotely, and 28.2% of crisis supporters reported that night shifts negatively affected their wellbeing. Qualitative findings (**Chapter 3**) documented crisis supporters feeling isolated and disconnected from supervisory support during remote work and night shifts. While an in-person intervention would be pragmatically difficult to implement in these at-risk situations, online resources can be accessed regardless of physical settings or time.

5.3.3.2 Decision to adopt a multicomponent design

A multicomponent intervention was selected to cater to varied support preferences expressed by crisis supporters. In Meeting 2, Advisory Group members identified 15 priority learning objectives, which represented a wide variety of skills, knowledge areas, and supports they wanted the intervention to provide (see Table 5.5). Also relating to the *Dream* phase, the qualitative study presented in **Chapter 2** identified varied support preferences, including desire for additional education on empathy-based stress, alleviation of empathy-based stress, and support with promoting connection among crisis supporters. Given the heterogeneity of preferences expressed by crisis supporters, it was determined that the intervention would adopt

a multicomponent structure. Three core components were ultimately selected, an ACT-based program, psychoeducational resources, and grounding exercises.

5.3.3.3 Selected intervention components

ACT was selected as a core component of the intervention. Among the five intervention types presented in Meeting 1, Advisory Group members ranked ACT the most favourably (M = 1.62). In addition to being highly preferred by crisis supporters, in the systematic review and meta-analysis presented in **Chapter 4,** ACT demonstrated efficacy in reducing stress and burnout in comparable occupational groups. As such, ACT was a user-preferred therapeutic approach that was supported by empirical evidence. As discussed in section 4.4, its focus on emotional regulation and acceptance is particularly relevant for crisis line work, where supporters regularly face heightened emotions and sit with uncertainty. Further, its emphasis on values-based action may help crisis supporters draw from personal values such as altruism or compassion to persevere through the challenges of their work (Hayes et al., 2006).

Secondly, psychoeducation was slated for inclusion. In Advisory Group Meeting 1, Psychoeducation was the third highest ranked intervention type, and in Meeting 2, psychoeducation-based factsheets (online or printed) were identified as feasible methods to achieve six of the 15 priority learning objectives. Moreover, the qualitative interviews presented in **Chapter 3** emphasised a clear need for psychoeducation, as 11/15 participants expressed that they had limited knowledge of the adverse effects of crisis support work (e.g., compassion fatigue). Finally, in **Chapter 4**, psychoeducation demonstrated efficacy in reducing psychological distress and burnout and increasing compassion satisfaction. Although the identified studies were delivered in in-person workshop settings, the alignment with expressed support needs and promising empirical evidence indicated that psychoeducation was a suitable component for inclusion.

Mindfulness-based grounding exercises were incorporated as the third component of the intervention. These are short, practical techniques that anchor awareness in the present moment, through deliberate attention to sensory or physical cues (Chelidoni et al., 2020; Hayes, 2005). Related to mindfulness, which was the second highest ranked intervention type, grounding was consistently discussed as an effective way of coping in Meeting 1 and identified as a desired support in Meeting 2. A key reason for the inclusion of grounding exercises was that Advisory Group members expressed a preference for brief, practical strategies that could be used flexibly within shifts to manage distress after challenging calls (see subsection 5.3.2.6). Thus, this inclusion directly addressed a priority learning objective and built on existing coping strategies, consistent with the Appreciative Inquiry principle of formalising existing strengths.

5.3.3.4 The prototype wellbeing intervention

WordPress (version 6.8.1), a website builder and hosting platform, was used to develop a prototype of the intervention interface for Advisory Group members to evaluate. The platform was chosen because of its ease of use, customisability, and cost-efficiency. A title for the prototype, '*Refill Your Cup'*, was selected by the candidate, drawing on the euphemism that fatigued helping professionals are 'pouring from an empty cup' (Evans et al., 2025; Najmabadi et al., 2024). The prototype intervention can be found at: https://refillmycup.wpcomstaging.com/.

The intervention incorporated three core components: i) an ACT-based interactive learning program, ii) psychoeducational factsheets, and iii) grounding exercises. Written content across all components adopted a warm, non-judgemental tone, and used accessible language. Efforts were made to make the site visually appealing and user-friendly. For example, ChatGPT was used to generate images and icons that cohered with the colour scheme (version 4o; OpenAI, 2025; see Figure 4.3).

Figure 5.1 Factsheet navigation page.

5.3.3.4.1 ACT-based learning program

The learning program was built using Sensei (Automattic, 2022), a WordPress application used to design module-based, self-paced learning. Of the six core principles of ACT (and six corresponding planned modules), the prototype developed one module in full, with four structured lessons. The module addressed the principle of present-moment awareness and was tailored to the context of crisis support. Lessons included i) *The power of the present moment,* ii) *Grounding yourself on shift,* iii) *Noticing vs. reacting,* and iv) *Activities*. Screenshots of these lessons are provided in **Appendix K.**

The course used a combination of written text, interactive activities, and multimedia elements, including images and animations. The written content and practical exercises were adapted from key ACT texts, including a book describing applications of ACT in the workplace (Hayes et al., 2006) and an ACT-based client workbook (Hayes, 2005). Additional resources informed the content relating to ACT theory and core principles (Brown et al., 2020; Harris, 2006; Hayes, Luoma, et al., 2006; Towey-Swift et al., 2023).

5.3.3.4.2 Psychoeducation factsheets

Two factsheets were drafted, and a further six were proposed, which can be seen in the site interface in Figure 5.3. One drafted factsheet was information-focused and provided psychoeducation on compassion fatigue (‘*What is Compassion Fatigue?*’; **Appendix I**) while the other was strategy-focused, offering options of how to spend a break on shift (‘*9 Things to do on a Break*’: **Appendix J**). Factsheets were tailored to the crisis supporter context, as can be seen in the extract suggesting a prevention strategy for compassion fatigue as follows:

“*Connect with other volunteers or workers: social connectedness is linked to lower rates of compassion fatigue.*[6] *Take a moment to chat or have a coffee/tea with a colleague. If you work remotely, consider video calling to get to know others at your organisation better.*”

A feature for downloading a formatted PDF of each factsheet was implemented, as members expressed preferences for printed resources to put on walls or in folders, to be used during shift (see preferred delivery methods in Table 5.5). Factsheets synthesised information from published research (Bride et al., 2007; Figley, 1995; O’Sullivan & Whelan, 2011; Pollock et al., 2012; Sercombe et al., 2025) and included in-text citations to communicate they were evidence-based, a noted facilitator (Table 5.6).

5.3.3.4.3 Grounding exercises

The prototype also included two grounding exercises. These included the '*Five Senses*' exercise, which prompts users to reorient by noticing things they can see, hear, feel, smell, and taste, as well as '*Box Breathing'*, a paced breathing activity that used a visual animation to guide inhalation and exhalation. These tools were intended to be easily accessible within shifts and could be practiced in a few minutes.

5.3.4 Preliminary evaluation of the prototype

The third aim, to undertake a preliminary evaluation of the prototype, was addressed in Meeting 3. During this session, members engaged with the intervention website and completed four structured activities that elicited feedback on specific components and the prototype as a whole.

5.3.4.1 Feedback relating to factsheets

Members voted for the proposed factsheets they judged as most useful. Each member had five votes to allocate across ten suggested topics, with the option to add a new idea. The most preferred topics related to guiding supervisory discussions (5 votes), strategies for managing overwhelm (4 votes), and compassion fatigue (4 votes; see Table 5.7).

Table 5.7 Proposed factsheet topics and corresponding votes from Advisory Group members.

Factsheet topic	Number of votes
How to get the most out of supervision	5
Activities to complete when feeling overwhelmed	4
What is compassion fatigue?	4
Prompts or a guide to bring to supervision	3
What to do on a break from counselling	2
Feelings temperature gauge to mark how you're feeling before/after/during a call	2
Getting help for role-related distress	2
What is vicarious trauma?	2
Self-care activities to do after shift	1
All about coping	1
What is moral injury and how can it affect us?	*Suggested by participant in this activity*

Two draft factsheets were reviewed: '*What is Compassion Fatigue?'* (**Appendix I**) and '*9 Things to do on a Break*' (**Appendix J**). Feedback on the content of both factsheets was strongly positive. Members described the information as informative, accessible, and relevant to crisis support work. Comments included "I liked the simple, clear information on breaks" and "straight to the point, clear and concise". The inclusion of citations was valued: "I'm big on evidence-based research, so love that you've referenced everything". Members also suggested

practical improvements, such as including back buttons and scroll-to-top functionality on the factsheet webpages.

The factsheets were judged as highly useful to crisis support work. Several members noted the practicality and usefulness of the factsheets across different stages of work: "I think this would be super useful to crisis supporters on shift (i.e., on breaks, or between calls)". Two participants mentioned that it would be important to ensure that IT systems on organisation computers do not block the website, as an external site.

5.3.4.2 Feedback relating to the ACT-based learning program

The draft ACT-based learning program received similarly favourable feedback, as well as practical points to be improved. In relation to content, participants appreciated the tone, level of complexity, and relevance. Comments included: "the tone was perfect" and "content was communicated [at] an easy [to] understand level, also loved how the content connected to crisis support".

Several members raised concerns about the density of text, suggesting making paragraphs more concise, or changing formatting to improve clarity (e.g., bullet points, tables, or images). They suggested inclusion of more interactivity, activities, or videos, as already included media was well-regarded ("The video of stream = so good"). Regarding usefulness, one member noted that "this would be super helpful", and while sections 4.1 ('*The power of the present moment*') and 4.2 ('*Grounding yourself on shift*') were well received for their utility, 4.3 ('*Noticing vs reacting*') was confusing to one member.

5.3.4.3 Overall impressions of the prototype

Participants also reviewed the wellbeing intervention in its entirety. They were asked to provide overall positive and negative impressions, as well as suggestions for changes or additions to the intervention. Participant feedback for the overall prototype is summarised in Table 5.8. Some feedback echoed earlier comments provided for the factsheets and the learning program, and was generally positive regarding the content and usability, with some easily actionable recommendations.

Regarding the user interface, participants described the website as easy to use, even by those with limited digital skills: "I feel it's user friendly. I am not that good on a computer, but I found this useful". Praise was given to the minimalist design and the self-paced nature of the site: "I like the flow of the website and that it feels like a choose your own adventure-esque. It is clean not clunky, minimal, easy to navigate and not overwhelming to look at". One member mentioned that accessibility options may need to be considered (e.g., text sizing).

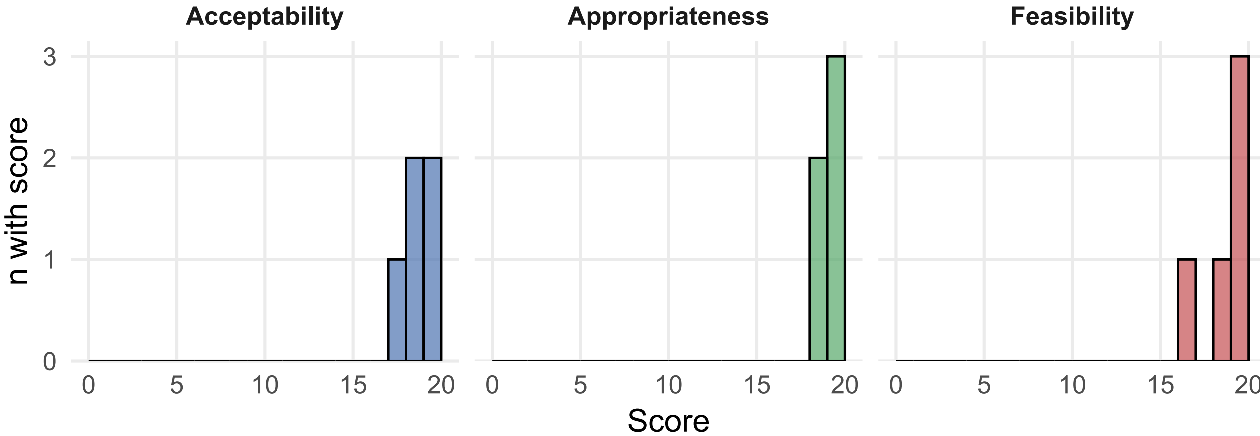
Table 5.8 Overall impressions of the prototype wellbeing intervention.

Feedback prompt	Summarised feedback
Positive impressions (e.g., '*I liked…*')	Consistent praise for name and logo; visually appealing layout; diverse mix of content types; effective tailoring to crisis supporter role, particularly the ACT program; practicality of activities; interactive grounding exercises using animations; accessible, plain-language writing style.
Negative impressions (e.g., '*I didn't like…*)	Some text too dense or required too much scrolling; minor aesthetic preferences (e.g., softer colours); concerns about how frequently content would need to be updated; worry that the website may be blocked by organisation intranet.
Suggestions (e.g., '*An idea I have is…*')	Include resources specific to new crisis supporters; add a section focused on supervision, including reflection prompts and practice tips; increase interactivity (e.g., more animated or video content); connect factsheets to follow-up activities; add navigation aids like back buttons and scroll-to-top functionality.

5.3.4.4 Brief online survey findings

Finally, the brief online survey was completed by all members of the Advisory Group present at Meeting 3 (n = 5). The survey provided a quantitative evaluation of the prototype using validated measures. The intervention was rated very favourably on acceptability, appropriateness and feasibility measures, receiving close to the highest score of 20 on each measure. The median acceptability score was 19 (range 18 to 20), while the median score on appropriateness was 20 (range 19 to 20), and feasibility was 20 (range 17 to 20). Frequency histograms of the results can be seen in Figure 5.2.

Figure 5.2 Acceptability, appropriateness, and feasibility of the wellbeing intervention prototype (n = 5).



5.4 Discussion

This chapter documents the co-design, development, and preliminary evaluation of *Refill Your Cup*, a wellbeing program tailored for crisis supporters, functioning as the *Design* phase of the Appreciative Inquiry framework. The resulting prototype is informed by the co-design process, as well as extensive scoping research from the *Design* and *Dream* phases. This body of work represents the first documented development and preliminary evaluation of a wellbeing intervention for crisis supporters.

This discussion is structured around the three aims of this study, which were to i) co-design a wellbeing intervention tailored for crisis supporters, ii) develop a prototype of the intervention, and iii) evaluate its preliminary acceptability, appropriateness, and feasibility.

5.4.1 Co-design process with the Advisory Group

The first aim was to co-design a wellbeing intervention tailored for crisis supporters. Findings suggest that this study was successful in achieving that aim. Despite some attrition as time progressed, Advisory Group members were actively engaged from the inception of intervention design and provided invaluable input into key design decisions for the intervention.

Contributions from Advisory Group members, alongside empirical evidence from **Chapters 2–4** informed key design decisions. These included the selection of an online delivery method, the adoption of a multicomponent structure, and the inclusion of ACT, psychoeducation, and grounding components. Activities were facilitated using the Mural software, which was an effective way of facilitating real-time collaboration with a remote Advisory Group, consistent with previous research noting its utility in co-design of health interventions (Coulter et al., 2024). Collaborative activities generated visual mind maps as tangible outputs from the co-design process while the 'like' functionality helped to identify popular suggestions.

Similar to prior studies documenting the co-design of online interventions (Snijder et al., 2021), and involving helping professionals in co-design (Benz et al., 2024; Parmar et al., 2025), people with lived experience were engaged through an Advisory Group. Consistent with these studies, the group was involved early and repeatedly throughout an iterative design process, aligning with recommendations by Slattery et al. (2020). This represented a higher degree of engagement than co-design studies that rely on one-off consultations with workers (e.g., Cogan et al., 2025).

In the present study, final decisions were made by the candidate, who had lived experience of crisis support work, and the supervisory team. While members heavily informed these

decisions, there was no embedded model of shared decision-making, which some frameworks identify as a more equitable form of co-design (Bellingham et al., 2023). In addition, Advisory Group members were not designated as lived experience researchers. Although this is considered the gold standard in some guidelines (Bellingham et al., 2023; Peters et al., 2024), it would require a substantial time commitment from crisis supporters, and the Advisory Group was a more pragmatic and time-efficient method of engagement. In line with recommended practice (Bellingham et al., 2023; Peters et al., 2024), Advisory Group members were reimbursed for their time.

This study is the first co-design process completed with crisis supporters, and one of few conducted with helping professionals more broadly. The results speak to the feasibility and utility of involving helping professionals in co-design through Advisory Groups, while future research should consider a more structured shared decision-making process.

5.4.2 The development of the wellbeing intervention prototype

The study was successful in developing a prototype of the online intervention, using WordPress to build the website. A proportion of each component was developed specifically 2/8 proposed factsheets, 1/6 ACT modules, and 2/3 grounding exercises. In this way, the prototype demonstrated the structure and functionality of the planned intervention, leaving placeholders to be populated further content in future iterations. WordPress was an effective and cost-efficient platform to build the prototype and is a feasible option to host the fully developed intervention.

The prototype's components are comparable to online interventions trialled in other helping professions. A recent systematic review and meta-analyses synthesised evidence from 53 RCTs evaluating online, self-guided ACT programs (Klimczak et al., 2023). Similar to the prototype, most were module-based (n = 43). The meta-analysis indicated that online ACT produced significantly improved outcomes including anxiety and depression, compared to waitlist controls. The findings of this review are promising for the *Refill Your Cup* ACT program, which should take cues from effective programs during further development (e.g., length of modules, strategies to promote engagement), while remaining tailored to the crisis supporter context.

In the prototype, the proposed psychoeducation factsheets ended up having two basic functions: being information-focused (e.g., '*What is compassion fatigue?*') or strategy-focused (e.g., '*Getting the most out of supervision*'). The former is likely most similar to psychoeducation referred to in the WHO guidelines on mental health at work (2022), which has efficacy in improving literacy but not wellbeing outcomes, and is suggested as an adjunct intervention. The latter is more

reflective of the Appreciative Inquiry framework, which sought to amplify existing strategies that may be effective (e.g., supervision, effective coping strategies).

Grounding exercises were included in the prototype as tools that could be used in-shift to help manage acute distress (for example, box breathing). Indeed, evidence from RCTs shows that progressive muscle relaxation techniques reduce stress and anxiety in nurses (Ganjeali et al., 2022). In an experimental study, full-time workers participated in a stress induction (Chelidoni et al., 2020). Post-induction, the intervention group participated in app-led breathing exercises, while a control group conducted a mindfulness activity. Breathing exercises were more effective, compared to mindfulness in reducing HRV and self-reported stress. The evidence base suggests grounding activities can be effective in reducing distress in the moment.

Considering the current form of the prototype in the context of the wider literature, the ACT program should be positioned as the 'core' of the intervention, providing the greatest potential for improvements in wellbeing. This is complemented by psychoeducational factsheets, adjunct resources that embed existing strong wellbeing supports. Finally, grounding exercises are used for in-shift stress alleviation. This multicomponent prototype should be further developed, informed by effective online interventions, and trialled within crisis support populations.

5.4.3 Preliminary evaluation of the prototype

In the preliminary evaluation, the prototype received very positive qualitative feedback and scored highly on measures of acceptability, appropriateness and feasibility. The co-design process was likely instrumental in these outcomes, which have several implications for further development, evaluation, and implementation.

The qualitative feedback provided practical recommendations for improving the next iteration of the intervention. Key refinements include reducing text density and increasing interactivity (e.g., quizzes, animations), both factors which have been shown to affect engagement in online interventions (Belogianni et al., 2023; Sardi et al., 2017; R. Zhang et al., 2024). Members also recommended the inclusion of resources to facilitate supervision, which aligns with Appreciative Inquiry principles of leveraging existing strengths. This may be addressed by factsheets including evidence-based information on supervision, and reflection prompts to take to sessions. Other factsheets that were rated most highly by the Advisory Group will be prioritised for future development (see Table 5.7). Beyond these refinements, the user interface (e.g., aesthetics and layout) and overall content (e.g., tone and writing style) was well-received and will stay consistent in subsequent versions.

Quantitative scores were closely clustered around the maximum scores on the measures of acceptability (AIM), appropriateness (IAM), and feasibility (FIM). No normed data are available for these scales, but these scores were higher than those reported in a recent RCT of an online wellbeing program with students, which demonstrated high engagement (Lambert et al., 2025). Although the predictive validity of these measures has not been established, Proctor et al. (2011) note that acceptable interventions have higher uptake, appropriate interventions are compatible with the target context, and feasible interventions are easier to carry out. Although the evaluation was conducted on a prototype of the *Refill Your Cup* rather than the fully developed intervention, the consistently high scores across these constructs are promising for future implementation.

5.4.4 Strengths

This study has several strengths. First, it is the first published development of an intervention for crisis supporters, a significant milestone in a field that has predominantly focused on problem identification. Second, the intervention design was informed by a large, multi-year program of scoping work, guided by the overarching Appreciative Inquiry framework. Incorporating these earlier findings meant that design decisions were grounded in empirical evidence from the *Discover* phase as well as lived experience insights from the *Dream* and *Design* phases. Finally, the mixed-methods evaluation provided quantitative data to facilitate comparison, but also qualitative data to obtain nuanced and practical refinements to be implemented in future iterations.

5.4.5 Limitations

There were also several limitations of note. Firstly, while nine members consented to be involved in the Advisory Group, only five were present for the preliminary evaluation in Meeting 3 due to attrition. As such, the sample size for the qualitative evaluation, and particularly for the quantitative evaluation was relatively small, though these studies represent preliminary findings. Secondly, the Advisory Group was involved in both the co-design and preliminary evaluation processes. Their dual role may have introduced bias to the preliminary evaluation, whether their specific recommendations were reflected in the design, or they felt a sense of ownership over the intervention. While both are desired outcomes of co-design, further evaluation should be conducted among wider samples, ideally at a later stage of intervention development.

Thirdly, participants who opted into the Advisory Group may have been particularly motivated or engaged in wellbeing practices. This may have introduced a positive bias in co-design

activities or the preliminary evaluation findings, which may not be representative of less engaged crisis supporters. Conversely, this level of motivation is likely to have brought a greater level of insight and experience with wellbeing, on which to draw. Finally, not all desired supports could be incorporated into the prototype. In particular, a want for greater social connectedness with peers was consistently expressed across interviews (**Chapter 3**) and co-design discussions, aligning with evidence that social support is protective of wellbeing among crisis supporters (Donnellan et al., 2023; Spafford et al., 2023). However, the draft factsheets guide crisis supporters in the process of increasing social connection.

5.4.6 Conclusion

Positive results from the preliminary evaluation indicate that the prototype should be developed into a full intervention. Future development should implement refinements suggestions by the Advisory Group. In addition to this, formal clinical review of components should also be conducted, particularly for the ACT learning program, to ensure fidelity to clinical principles. There is also potential to expand the scope of the intervention, to include more components or address more priority learning objectives, including social support.

This study represents an initial, but essential, step in addressing the wellbeing needs of crisis supporters. The rigorous codesign and promising preliminary findings provide a foundation for a pilot trial of the *Refill Your Cup* intervention. This next stage should assess outcomes including compassion fatigue, compassion satisfaction, psychological distress, and coping strategies. Evaluating these outcomes over time in an RCT design, with follow-up assessments would allow investigation of efficacy and sustained benefits. Outcomes relevant for the implementation of digital interventions should also be considered, including metrics of user engagement and retention.

Chapter 6

General discussion

Suicide is a leading cause of death worldwide and remains a major public health issue (Weaver et al., 2025). Crisis lines play a critical role in global mental healthcare structures by delivering accessible support to individuals experiencing distress or suicidality. These services depend on a frontline of crisis supporters to field phone and text-based contacts. Crisis support work can be deeply rewarding, but it also exposes those in the role to numerous stressors and risks to their wellbeing (Kitchingman et al., 2018b; Willems et al., 2020; Willems et al., 2021).

Despite the ubiquity of crisis lines and their reliance on crisis supporters, there is limited high-quality research on the wellbeing of workers and a scarcity of information on approaches to improve their wellbeing. This thesis addressed these gaps by conducting a multi-method investigation of crisis supporter wellbeing, guided by the Appreciative Inquiry framework and six overarching research objectives:

1. Identify the stressors experienced in the crisis supporter role (**Chapters 2** and **3**).
2. Examine levels of wellbeing and associated factors (**Chapters 2** and **3**).
3. Investigate strategies that crisis supporters use to cope in their role (**Chapters 2** and **3**).
4. Determine the efficacy of interventions that aim to improve the wellbeing of roles that provide counselling to people in crisis (**Chapter 4**).
5. Investigate how crisis supporters prefer to be supported in their role (**Chapters 3** and **5**).
6. Co-design a prototype wellbeing intervention tailored for crisis supporters and conduct a preliminary evaluation of its acceptability, appropriateness, and feasibility (**Chapter 5**).

The preceding chapters of this thesis describe four empirical studies. **Chapter 2** presented a quantitative survey (n = 422) that investigated stressors, wellbeing, and coping (including substance use) among crisis supporters. **Chapter 3** described a thematic analysis of in-depth qualitative interviews with 15 crisis supporters, documenting their lived experience, including stressors, coping strategies, and support preferences. **Chapter 4** presents findings from a systematic review and meta-analysis that identified the existing evidence of wellbeing interventions for crisis supporters and other roles that provide counselling to people in mental health crisis. **Chapter 5** reported on the co-design and preliminary evaluation of a prototype digital wellbeing intervention for crisis supporters, in collaboration with a lived-experience Advisory Group (n = 8).

Together, this thesis makes a significant and novel contribution to the under-researched field of crisis supporter wellbeing. **Chapters 2** and **3** add to our academic understanding of work-related challenges and coping strategies used by crisis supporters in the role. **Chapters 4** and **5** contribute to our understanding of best practices on supporting those in the role, culminating in the development and preliminary evaluation of a wellbeing intervention co-designed to support this population. This general discussion synthesises findings across the empirical studies to answer the six research objectives, and considers implications for crisis supporters, crisis line organisations, and policymakers as well as funders. It also outlines strengths and limitations of the thesis and proposes directions for future research.

6.1 Summary and synthesis of key findings

6.1.1 Identify the stressors experienced in the crisis supporter role.

A mixed-methods approach was used to address this research objective, drawing on a quantitative survey (**Chapter 2**; n = 422), and qualitative interviews (**Chapter 3**; n = 15). While previous studies have explored stressors, overwhelmingly, they have recruited from one organisation per study, resulting in homogenous samples of crisis supporters across quantitative (Willems et al., 2021) and qualitative research (Cooney & McCashin, 2023; Pollock et al., 2016; Vattøe et al., 2020). This limits generalisability of findings, as organisation structure and culture may shape the types of stressors encountered. Uniquely, the survey presented in this thesis included participants from 38 different telephone and chat-based crisis lines and is among the largest to date (n = 422). The qualitative interviews also included participants from more than one crisis line. This breadth offered a more comprehensive view of this workforce.

A distinct gap concerned emerging aspects of the working landscape, including flexible work arrangements and chat-based support, though some studies suggested that they may impact crisis supporters (Cooney & McCashin, 2023; Willems et al., 2021). By virtue of their recency, the surveys and interviews were able to capture these contemporary features. Several sources of stress were of notable importance across both the quantitative and qualitative studies (**Chapters 2** and **3**), which were categorised as role-based stressors (arising directly from providing crisis support) and workplace-based stressors (relating to the broader work environment).

The most salient role-based stressor was trauma exposure, including exposure to suicidal behaviours or descriptions of help-seekers' own traumatic experiences. This was the most highly endorsed stressor in the survey, and in interviews, several participants spoke of how traumatic content stayed with them well after the conclusion of certain interactions. Together, this evidence is consistent with Aldrich and Cerel (2020), who reported that approximately one in three crisis supporters had been exposed to a death by suicide in their role, which was associated with symptoms of depression, anxiety, and PTSD. Previous research has demonstrated that presentations characterised by suicidality are higher over chat-based crisis lines relative to phone crisis lines (Gould et al., 2021). As chat-based supporters represented 22% of survey respondents and 4 of 15 interviewees, this may have contributed to the high salience attributed to trauma and suicide-related exposure in these findings. Evidently, traumatic exposure is a significant stressor for crisis supporters, as it is for members of other helping professions (Bercier & Maynard, 2015; Carleton et al., 2019).

Another salient stressor was uncertainty about the outcome of interactions, particularly when suicide risk was perceived to be high. This stressor has received comparatively little attention in prior research, and goes unmentioned in existing systematic reviews of crisis supporter wellbeing (Kitchingman et al., 2018b; Willems et al., 2020). Additional high-impact role-based stressors included challenging caller profiles, specifically argumentative, sexually motivated, and frequent callers. As observed in other qualitative work (Allan et al., 2025; Pollock et al., 2010), sexually motivated calls were discussed at length in interviews and noted as particularly frustrating and distressing. Similarly, this caller profile was highly endorsed in the survey, alongside frequent callers, which remain a salient emotional stressor for crisis supporters (Gilat & Rosenau, 2011; Vattøe et al., 2020) and an operational demand for crisis lines more broadly (Pirkis et al., 2016; Spittal et al., 2015).

Several workplace-based factors were perceived as stressful, including high job demands (e.g., targets for calls per hour) and overnight shift work. Isolation was a key theme in interviews, particularly among those working remotely. Evidence from quantitative findings supported this

relationship, where greater time spent working remotely was linked to compassion fatigue. These results add weight to preliminary evidence from quantitative (Willems et al., 2021) and qualitative research (Cooney & McCashin, 2023) that suggested isolation may be a factor for remote workers. Together, the findings of this thesis suggest that the lack of social support and limited opportunities for casual debriefing experienced by those working remotely is a notable risk factor emerging due to this new way of working. Also related to isolation, shift work was identified as a stressor for over a quarter of survey respondents and described by interviewees to interrupt sleep, eating, and importantly, social schedules. This aligns with evidence that shift work can disrupt social patterns and reduce connectedness felt by workers (Moreno et al., 2019)

Collectively, the surveys and interviews provided a detailed account of the stressors faced by crisis supporters, some of which reflected recent shifts in the work environment. These stressors provide important context for interpreting wellbeing outcomes among crisis supporters. The following section reports levels of key wellbeing outcomes, as well as associated factors.

6.1.2 Examine levels of wellbeing and associated individual and role-related factors

A second research objective was to examine levels of wellbeing outcomes in crisis supporters, as well as individual and role-related factors associated with them. This thesis addressed key gaps in the literature with **Chapter 2** estimating the prevalence of compassion satisfaction, compassion fatigue, psychological distress, and substance use in a large, diverse sample using psychometrically robust measures. To identify factors associated with wellbeing, multivariate models were used to control for confounding variables, overcoming limitations of earlier studies. Interviews in **Chapter 3** provided qualitative context to these findings, offering insight into how crisis supporters experience wellbeing in their role and the factors they perceive as influencing it.

Wellbeing outcomes revealed a mixed picture. One in three crisis supporters reported high compassion satisfaction, and almost every interviewee cited motivating or rewarding aspects of the role, including personal growth, connection with help-seekers, and altruistic fulfilment. These findings are consistent with high levels of compassion satisfaction reported by several quantitative studies (Donnellan et al., 2023; Lee-Cheong et al., 2025; Spafford et al., 2023). Interestingly, no individual or role-related factors were significantly associated with compassion satisfaction, contrary to the findings of Lee-Cheong et al. (2025) that reported positive

associations with age and experience. Interview findings aligned with prior qualitative work emphasising the intrinsic satisfaction derived from the role, where crisis supporters feel a sense of purpose and that they make a difference (Aguirre & Bolton, 2013; Sundram et al., 2018). Evidently, for many in the role it is a meaningful source of fulfillment.

In contrast, one in five survey respondents reported high compassion fatigue, and over half the sample of interviewees described typical symptoms, including emotional exhaustion, irritability, or avoidance of work. Quantitative findings provide a more precise estimate of compassion fatigue compared to previous work using the ProQOL-5, which has poor psychometric properties (Donnellan et al., 2023; Spafford et al., 2023; L. Zhang et al., 2021), while qualitative data contextualised how it manifests in daily practice. Vicarious trauma was not measured in the survey, but four interview participants described re-experiencing distressing content, which is a characteristic symptom of vicarious trauma. Taken together, these results confirm compassion fatigue as a reality for a significant number of crisis supporters, though the majority do not report high levels.

High psychological distress was reported by one in three survey participants. Similarly, most interviewees described internalising symptoms, such as sadness, helplessness, or agitation, occurring due to role-based or workplace-based stressors. At times, this distress led to crisis supporters leaving work early or not attending at all. These findings add context to Kitchingman et al.'s (2017) observation that psychological distress was linked to impaired work performance in crisis supporters, and adds to limited research investigating this key concept in crisis supporters.

This research objective also aimed to determine individual and role-related factors associated with wellbeing. Analysis conducted in **Chapter 2** indicated that female gender, years of experience in the role, and increased time working remotely were associated with higher compassion fatigue. Younger age, having lived experience of suicide, and providing support over chat were associated with psychological distress. The large, diverse sample and use of multivariate models strengthen earlier findings that suggest female crisis supporters (Kitchingman et al., 2018c) and those of younger age (Kitchingman et al., 2017; Lee-Cheong et al., 2025; Roche & Ogden, 2017) report poorer wellbeing outcomes.

Importantly, the recency of this work allowed examination of new features of the crisis support work environment, a gap evident in prior research. Increased time working remotely and providing chat-based support were significantly associated with increased compassion fatigue and psychological distress, respectively. As discussed in section 6.2.1, qualitative findings provided further insight, with participants describing how remote work limits opportunities to

connect with peers, reinforcing research from Cooney and McCashin (2023) and Willems et al. (2021) that found preliminary evidence of isolation among crisis supporters working remotely. This thesis is the first to investigate whether modality of support is associated with wellbeing, with findings suggesting that chat-based support may be a risk factor for distress.

In summary, the crisis supporter role may compromise wellbeing, particularly via compassion fatigue or psychological distress. At the same time, many persevere in the role, including the significant proportion that are volunteers, likely due to strong feelings of compassion satisfaction and prosocial rewards. These contrasting outcomes were associated with demographic and work characteristics, and it is critical to understand additional factors that might buffer the impact of stressors or promote wellbeing. The following section builds on these findings to examine the role of coping strategies in shaping wellbeing outcomes.

6.1.3 How do crisis supporters cope with their work?

Using a mixed-method approach to draw from several sources of evidence, this thesis provides a comprehensive view of how crisis supporters cope with their role. This research question was addressed across three components of this thesis: the quantitative survey reported in **Chapter 2**, the qualitative interviews in **Chapter 3,** and the first Advisory Group meeting described in **Chapter 5**.

Quantitative findings from the survey demonstrated that coping styles were related to each of the three wellbeing outcomes, which were compassion satisfaction, compassion fatigue, and psychological distress. Problem-focused coping was consistently linked to better wellbeing in these three outcomes. In contrast, emotion-focused coping, and to a greater extent, avoidant coping were related to poorer wellbeing across all three indicators. While this pattern of results is relatively well-established in helping professionals more broadly (Jamal et al., 2022; Zeladita-Huaman et al., 2024), the findings of this thesis add evidence to a small body of research replicating this work in crisis supporters (Dunkley & Whelan, 2006; Kaur, 2021).

These cross-sectional associations were given additional context by qualitative findings from interviews, which roughly aligned with discussions of coping in the Advisory Group meetings. Interview participants described a wide range of strategies used to cope with role-related stress, where most activities reflected problem-focused or emotion-focused strategies, such as debriefing, grounding exercises, and connecting with peers, friends, or family. Thematic analysis identified that these could be grouped into ways to manage emotions during shift, post-shift self-care, social support, and the use of routines to prepare for and complete shift.

While not captured in quantitative data, organisation-provided supervision was reported as a key coping resource in qualitative findings, as it has been in previous studies (Kitchingman et al., 2024; Willems et al., 2021). Participants found debriefing with supervisors helpful in processing emotions and recognising symptoms of empathy-based stress. Group supervision was also viewed as beneficial in validating feelings and fostering connection with peers.

Yet, avoidant coping strategies were also described and emerged as a theme in interviews. Several participants mentioned eating to cope with work-related distress. In addition, as has been documented in other helping professionals, including paramedics (Carleton et al., 2019; Sercombe et al., 2025), nurses and doctors (Al-Kayed et al., 2025), evidence suggested that alcohol and other drugs were used to cope with work-related stress. Nearly half of interview participants reported using alcohol to manage stress following difficult shifts, with several noting an increase in consumption since beginning their crisis supporter role. In line with this, a subset of survey respondents reported moderate-risk substance use, of which the most prevalent were alcohol (17.3%), sedatives (7.7%), and cannabis (7.2%). High-risk use was uncommon across all substances with no categories exceeding 0.5%. Taken as a whole, while some crisis supporters reported hazardous or harmful substance use (moderate-risk), few reported high-risk patterns indicative of dependence according to the ASSIST scoring algorithms (Humeniuk et al., 2010).

Avoidant coping behaviours were often acknowledged by participants as unproductive. Characteristic of avoidant coping (Trudel-Fitzgerald et al., 2024), it is likely that these strategies provided short-term relief, but were unhelpful in the long-term, as was reflected in quantitative findings. The survey measured other facets of avoidant coping, specifically cognitive strategies such as self-distraction and denial (Carver, 1997), which may not have been as readily reflected in qualitative findings as substance use.

As discussed, qualitative evidence indicated that some crisis supporters engaged in substance use to manage work-related stress (**Chapter 3**). However, quantitative findings provided less direct evidence of this behaviour, though avoidant coping more broadly was strongly associated with negative wellbeing outcomes (**Chapter 2**). Accordingly, substance use was not explicitly targeted in the *Refill Your Cup* intervention, although there was an emphasis on improving coping strategies, which may reduce reliance on substance use. While this thesis represents the first investigation of substance use in crisis supporters, further research is needed.

In summary, many crisis supporters rely on self-motivated, constructive strategies to cope with stressors. While supervision emerged as a valued organisation-led support in the interviews, participants also expressed a desire for additional support to be provided to them in their role.

Considering that in the current environment, a subset of crisis supporters reported adverse effects to their wellbeing and may engage in avoidant coping (including problematic substance use), there is a clear gap for additional structured interventions to complement self-led productive coping efforts.

6.1.4 What interventions demonstrate efficacy in improving the wellbeing of crisis supporters or similar professions?

Despite the clear need for interventions to support crisis supporters, as indicated by the findings of **Chapters 2–3**, the availability of such interventions and their efficacy is unknown. To address this gap in the literature, **Chapter 4** conducted the first systematic review and meta-analysis of interventions aimed at improving the wellbeing of professionals who support people in mental health crisis. Thirteen studies met inclusion criteria. Notably, no published interventions had been evaluated in crisis supporter populations. The studies included in the review targeted social workers (n = 11) and counsellors (n = 2). This confirmed a critical gap in the literature; while wellbeing challenges among crisis supporters are increasingly recognised, evidence-based programs developed for—or tested within—this workforce remain absent.

Within counsellors and social workers, the most frequently used intervention approaches were mindfulness, ACT, and psychoeducation. The overall quality of the evidence was low: three studies were rated as poor, seven as fair, and only three as good quality, restricting the strength of conclusions that could be drawn. A meta-analysis of a subset of controlled studies, revealed moderate and statistically significant reductions in stress (n = 4; g = -0.62) and burnout (n = 3; g = -0.46), suggesting interventions may have the potential to improve wellbeing in crisis-facing professionals. This is consistent, albeit smaller, than the effect size reported in Lipsa et al.'s (2024) meta-analysis which included 12 empathy-based stress interventions for helping professionals. Both meta-analyses conducted subgroup analyses where online interventions showed promise. Whereas **Chapter 4** found that online interventions were comparable in effectiveness to in-person interventions, Lipsa et al. (2024) reported that online interventions were significantly more effective in reducing empathy-based stress.

Integrating these findings, **Chapter 4** confirms the urgent need for the development and evaluation of wellbeing programs tailored for crisis supporters. However, findings suggest that interventions have the potential to improve the wellbeing of those who provide counselling to people in crisis. Therapeutic approaches including ACT, mindfulness, or psychoeducation approaches appear promising, and as do interventions delivered online. These insights,

combined with those of **Chapters 2** and **3,** provide a clear rationale for the co-design and preliminary evaluation program of work described in **Chapter 5**.

6.1.5 How do crisis supporters want to be supported in their role?

Crisis supporters' support preferences were addressed by the thematic analysis of interviews (**Chapter 3)**, as well as in the Advisory Group Meetings 1 and 2, (**Chapter 5**). These results filled a gap in the literature and addressed the *Dream* phase of the Appreciative Inquiry framework guiding this thesis. Crisis supporters identified a wide range of ways to be supported in their work. A breadth of additional supports were suggested, including check-in tools, psychoeducation, grounding exercises, opportunities for social connection, and supervision preferences.

One commonly expressed need was psychoeducation relating to ways to cope with empathy-based stress. In the findings of **Chapter 3**, addressing empathy-based stress emerged as a subtheme under support needs. A majority of interviewees indicated that they had limited knowledge of concepts such as compassion fatigue. Across interviews and Advisory Group meetings, participants suggested that information about symptoms, risk factors, and preventative strategies could be helpful. Other resources that provided recommendations for self-care strategies that could be incorporated into breaks were requested. In interviews, participants also expressed interest in tools for measuring wellbeing. Within the Advisory Groups, this interest translated into concrete suggestions, specifically for self-assessment or check-in tools, that provide personalised feedback regarding levels of compassion fatigue or distress.

Grounding, mindfulness practices, and other self-led emotional regulation strategies were identified as important components of in-shift coping in the qualitative findings of **Chapter 3**. This theme was reinforced during Advisory Group meetings, where members noted that tools to support grounding, mindfulness, and breathing exercises would be particularly useful to manage stress during or between interactions. This suggestion aligned with crisis supporters' preference to use wellbeing resources within the workflow of a shift, rather outside of work.

Crisis supporters often expressed a strong desire for greater connection with their peers. This desire emerged as a theme in the thematic analysis conducted in **Chapter 3**, where 9/15 participants raised this issue. Advisory Group participants similarly suggested several initiatives to increase workplace connection, like dedicated space for informal debriefing and casual conversation. This need appeared particularly relevant to those working remotely, which accounted for an average of 33.5% of time worked, as shown in **Chapter 2**. There is some

evidence for the importance of social connection in promoting wellbeing, as Donnellan et al. (2023) found that perceived social support was significantly associated with compassion satisfaction among crisis supporters. Increasing social connection may play a meaningful role in improving wellbeing but likely requires cultural shifts within organisations.

Supervision was the most valued existing form of support by a large margin and should remain a central pillar of wellbeing structures. Nonetheless, participants across the studies in **Chapters 3** and **5** suggested strategies to augment existing supervisory frameworks, consistent with the Appreciative Inquiry approach of leveraging and building on existing strengths. Resources were requested to guide discussions with supervisors, particularly for new crisis supervisors, including prompts such as "What has been a good call for you recently?" or "Have any calls been challenging or sat with you?". Participants also felt that they had to advocate for themselves to receive supervision, but at times lacked the capacity to if they were drained or exhausted. They called for a change in the provision of supervision, so that it was opt-out or proactively administered.

These findings address a critical gap in knowledge by providing insight into how crisis supporters prefer to be supported in their role. Assessing preferences is an important step in tailoring appropriate support frameworks (Merriel et al., 2022) and has been explored in healthcare professionals (Maple et al., 2024; Pellikka et al., 2024). Research regarding support preferences among mental healthcare roles is scarce, and this thesis represents the first investigation of support preferences among crisis supporters specifically. Consulting end-users in design can increase the appropriateness of interventions in satisfying workforce priorities and avoiding re-inventing the wheel (Chalmers & Glasziou, 2009).

Results indicated several new areas for development of new support strategies, including psychoeducation, self-led grounding, self-assessment and personalised feedback, connection with peers, and existing supports to be bolstered, including supervision. These findings directly inform the next component of this thesis, which sought to design and conducted a preliminary evaluation of a wellbeing intervention for crisis supporters.

6.1.6 What is the outcome of a co-design process and preliminary evaluation of a wellbeing program for crisis supporters?

Chapter 5 described the first documented development and preliminary evaluation of an intervention for crisis supporters. This chapter directly filled a gap in the literature that has been described as an urgent need in two systematic reviews of crisis supporter wellbeing

(Kitchingman et al., 2018b; Willems et al., 2020). It also served as the *Design* phase of Appreciative Inquiry.

A central strength of this work was its co-design process. An Advisory Group (n = 8) provided input into the intervention from its inception and across multiple iterations, as is recommended by co-design guidelines (Slattery et al., 2020). Co-design is recognised to increase the specificity of an intervention by tailoring it to the needs and context of end-users (Domecq et al., 2014; NHMRC, 2016). In this study, Advisory Group contributions shaped the program's core components and several aspects of the program, including its core components and online modality. The prototype intervention was well-received in the preliminary evaluation regarding feasibility, appropriateness, and acceptability. These indicators are recognised predictors of implementation success (Weiner et al., 2017), suggesting promising rates of adoption and engagement among crisis supporters.

Evidence from the systematic review and meta-analysis in **Chapter 4** indicated that interventions including ACT, mindfulness, and psychoeducation were effective in improving wellbeing among roles who provide counselling to people in crisis. Subgroup analyses found that online modalities were an efficacious delivery method, consistent with findings from interventions for healthcare professionals more broadly (Lipsa et al., 2024). Taken together, this evidence suggests that the online *Refill Your Cup* intervention, comprising an ACT-based learning program, psychoeducational factsheets, and grounding exercises, may hold promise for improving crisis supporter wellbeing.

This study represents a milestone in the field of crisis supporter wellbeing, as researchers move from researching the problem to testing solutions. It demonstrates the preliminary feasibility of a digital, co-designed wellbeing intervention for this population. The chapter lays the groundwork for a future comprehensive trial of the *Refill Your Cup* intervention, which may have significant potential as an easily scalable wellbeing program for crisis supporters if shown to be effective.

6.2 Implications

The findings of this thesis have implications for crisis supporters, the organisations that coordinate crisis lines, and the funders and policymakers who resource them. The below sections will outline these implications grouped by those impacted.

6.2.1 Implications for crisis supporters

These findings have several important implications for crisis supporters themselves, who play a crucial role in mental healthcare systems by delivering accessible care to wider communities. Taken together, the studies evidence the assertion that the crisis supporter role is characterised by distinct benefits, but also by inherent demands that can adversely affect wellbeing. Crisis supporters may be able to mitigate the impact of stressors by employing effective coping strategies and actively engaging with wellbeing interventions. With appropriate management of stressors, the positive dimensions of the role such as a sense of altruism, connection, and personal growth (reported in **Chapter 3**), alongside compassion satisfaction, may compensate for negatives.

The results indicate that crisis supporters may find it helpful to engage in problem-focused coping activities (e.g., supervision, solution-focused journalling) and to limit levels of avoidant coping (e.g., substance use, self-distraction). It must be noted that these results are informed by cross-sectional methodologies used in this thesis, which were unable to establish the directionality of effects. However, longitudinal research among workers (Achnak & Vantilborgh, 2021) and the general population (Holahan et al., 2005) report that problem-focused coping predicts higher wellbeing and avoidant coping predicts poorer wellbeing, although the exact causal mechanisms are less well-explored. A diverse range of coping strategies reported as helpful by experienced crisis supporters included shift preparation routines, techniques used in-shift for emotional regulation, and post-shift self-care. Knowledge sharing of 'healthy' coping strategies amongst peers may also be beneficial, potentially in group supervision or similar environments.

In addition to self-led coping strategies, findings from **Chapters 4** and **5** suggest that crisis supporters can play an active role in improving their own wellbeing by engaging with structured interventions. Interventions such as ACT and mindfulness, show promise in reducing levels of empathetic-based stress. The digital *Refill Your Cup* program requires further development and evaluation to assess efficacy in improving wellbeing. However, preliminary evaluation indicated that the intervention's components, including psychoeducation factsheets, grounding exercises, and tailored ACT, were well-received in their perceived usefulness and feasibility to support wellbeing at work.

6.2.2 Implications for crisis supporter organisations

Organisations that coordinate crisis lines have a key role in supporting the wellbeing of their frontline workforce. Alongside prior research (Kitchingman et al., 2017; Kitchingman et al., 2018; Willems et al., 2021), findings from this thesis suggest that wellbeing issues not only impact crisis supporters but also have implications for broader service quality and sustainability.

Chapter 3 reported several cases where distress caused absenteeism or impaired functioning at work. Kitchingman et al. (2018c) found that this distress-related impairment was associated with reduced use of core counselling skills. Further, work-related stressors have been linked to higher intention to leave the role (Willems et al., 2021). Overall, this evidence suggests that distress among crisis supporters may compromise the quality of care provided and increase costly outcomes for organisations, such as turnover and absenteeism. These risks, along with responsibilities to care for staff, underscore the imperative of organisations to take meaningful action to promote wellbeing.

A key area for focus is mitigating the effects of role-related stressors, which negatively impact wellbeing (Willems et al., 2021). Some challenges, such as managing uncertainty or trauma exposure may be managed by further training or support mechanisms triggered by high-risk calls. Crisis supporters also expressed a want for support and clear policy in managing certain caller profiles. Pirkis and colleagues (2016) propose an alternate care pathway for known frequent callers to specially trained staff, a strategy that organisations may consider adopting. Given the emotional impact of abusive and sexually inappropriate calls, organisations should explore protective policies and support for affected crisis supporters.

Workplace-related stressors should be addressed, particularly high perceived work demands and shift work. Crisis supporters expressed a desire for a cultural shift that prioritises worker wellbeing over performance metrics, which may be considered by organisations. Shift work contributed to fatigue and social isolation, as it has in many other occupations (Moreno et al., 2019). Organisations should communicate clear, evidence-based guidelines, for example Shriane et al.'s (2023) healthy sleep practices for shift workers.

Feelings of isolation from peers was common and not limited to shift workers. Social connection among crisis supporters may reduce burnout or increase compassion satisfaction (Donnellan et al., 2023; Spafford et al., 2023). Isolation has also been identified as one of the most important factors relating to turnover. Of 25 stressors, lack of contact with other volunteers showed the strongest association with intention to leave (Willems et al., 2021). Throughout this thesis,

participants consistently expressed a desire to socialise and casually debrief with peers. Organisations should foster social connection, particularly for remote or shift workers. Opportunities include 'connection groups', which were well-received communal craft sessions over Zoom used during pandemic restrictions, and for in-person connection, social outings and shared break spaces.

Findings from this thesis have several implications for strengthening organisation-provided supervisory frameworks. Evidence from other frontline personnel demonstrates the importance of managerial and leadership support for wellbeing. For example, among paramedics, fostering an environment perceived to support psychological safety is associated with higher wellbeing (Petrie et al., 2018), while greater perceived quality of leadership is related to lower PTSD symptoms in military personnel (Jones et al., 2012).

Within the findings of the thesis, crisis supporters expressed a clear preference for in-person supervision, yet noted that even when working on-site, supervision was often delivered online. Organisations should therefore aim to provide in-person supervision where feasible. Another recommendation was incorporating education about empathy-based stress into supervisory interactions, including symptom recognition and the use of actionable strategies, such as problem-focused coping. Additionally, during work hours, supervision should function on an opt-out rather than opt-in basis, as crisis supporters reported being least able to advocate for support when they were emotionally exhausted and most needed it. Ensuring that supervision is accessible and proactive rather than reactive may help cultivate the psychologically safe environment linked with improved wellbeing in other frontline workforces.

Finally, it is imperative that organisations invest in the implementation and evaluation of wellbeing interventions. Organisations should consider evaluating the effectiveness of existing supervision frameworks, to ensure care is evidence-based. In parallel, findings from this thesis suggest that ACT, mindfulness, and psychoeducation approaches show promise in reducing stress and burnout. The *Refill Your Cup* program employs these therapeutic approaches and was considered feasible and useful for integration into the work context.

A consensus among Advisory Group members was that organisations should embed a culture that prioritises wellbeing, to create conditions that facilitate help-seeking among staff. Investing in visible wellbeing initiatives can send a strong signal that crisis supporter wellbeing is prioritised. This cultural shift supports individuals, but also may bring broader organisational benefits, including improved retention, reduced absenteeism, and higher service quality. By mitigating stress-related impairment, organisations may also improve outcomes for callers and, ultimately, benefit the wider community.

6.2.3 Implications for funders and policymakers

This thesis highlights a need for sustained monetary investment in the wellbeing of crisis supporters, and crisis lines more broadly. In Australia, crisis supporters are a critical frontline in suicide prevention strategies (Australian Government Department of Health and Aged Care, 2020; National Suicide Prevention Office, 2025). However, they are absent from the National Mental Health Workforce Strategy which outlines supports for workers (Australian Government Department of Health and Aged Care, 2022), potentially due to the volunteer status of many crisis supporters. However, a significant proportion are paid, full-time workers and further, volunteers completing critical work must not be overlooked.

Funders and policymakers should recognise crisis helplines not only as vital public health infrastructure, but also as workplaces that require resourcing to sustain their workforce and protect them from occupational risks. Findings from **Chapter 2** indicated that one in three crisis supporters reported high psychological distress—three times higher than the general population (Slade et al., 2011). Investment should be directed to strengthening existing supports like supervision and funding the evaluation and potential scale-up of evidence-based wellbeing interventions tailored to this workforce.

Given the proven effectiveness of crisis lines and the mostly volunteer makeup of the workforce, crisis lines are likely cost-effective areas to direct Australian federal and state funding to address national suicide prevention goals. In the context of rising demand for mental health services, investing to address crisis supporter distress and as such, downstream effects on crisis line functionality, is economically and socially prudent.

6.3 Strengths and limitations

6.3.1 General strengths

This thesis has several strengths. Firstly, in all studies that collected primary data (**Chapters 2**, **3**, and **5**), crisis supporters were recruited from multiple organisations. The survey sample was heterogeneous and included crisis supporters across 38 different crisis lines. Sampling from more than one crisis line per study is uncommon in this field (Willems et al., 2020). Considering the diverse nature of the crisis supporter population (e.g., volunteers vs employees, phone vs chat-based, varied shift hours including night shifts), broad recruitment strategies should be used to improve the generalisability of findings. Within this thesis, the heterogeneous Advisory Group increases the relevance of the co-designed intervention.

A second strength was the multi-method design of studies, which were integrated into a larger project through the Appreciative Inquiry framework. The *Discover*, *Dream,* and *Design* phases, which were conducted in this thesis, comprised a large survey, qualitative interviews, and a systematic review and meta-analysis. This multifaceted approach enabled integration of quantitative (**Chapter 2**) and qualitative findings (**Chapter 3**), and empirical evidence of evaluated interventions (**Chapter 4**), to be considered alongside lived experience co-design processes (**Chapter 5**) to inform the intervention prototype. The application of the Appreciative Inquiry framework provided cohesion across these studies in serving the overall goal of intervention development. Consequently, while this represents the first documented development of an intervention for crisis supporters, the prototype is grounded in an unusually substantial body of scoping research.

Further, the framework's strength-based approach was well-suited to this population, who displayed significant existing capacity to cope in their role and had access to some wellbeing supports provided by their organisations, particularly supervision. As is recommended by the approach, some existing strengths were integrated in the intervention prototype, for example, grounding exercises and recommended coping strategies in the ACT program. The strength-based approach will be carried forward as development of the final intervention progresses.

Another key strength was the candidate's lived experience as a crisis supporter, which increased rapport with participants and organisational stakeholders. This background granted an intrinsic subject-matter expertise in the day-to-day experience, terminology, and culture of crisis support work. When people with lived experience shape research agendas, outputs are more likely to reflect their priorities and resonate with their values (Bellingham et al., 2023; Chalmers & Glasziou, 2009; Slattery et al., 2020). While the candidate was not a practicing crisis supporter, the co-design process fostered collaboration with current workers, albeit without formal shared decision making. Overall, the thesis strived to place crisis supporters at the centre of research, through both the lived experience of the candidate and co-design methods.

6.3.2 General limitations

Despite these strengths, several limitations should be acknowledged. **Chapters 2** and **3** used convenience sampling, rather than a random sampling strategy. This limited the generalisability of findings and reduced the epidemiological rigour of reported associations and prevalence rates. However, the sample from **Chapter 2** was similar to from previous work purported to be representative of crisis support populations (Kitchingman et al., 2018c). Another significant limitation is the cross-sectional design of **Chapter 2**, which meant that causal inferences could

not be drawn from findings. For example, while coping strategies were related to wellbeing outcomes, the directionality of these associations remains unclear.

Another limitation relates to the immaturity of the field investigating empathy-based stress. Compassion fatigue and compassion satisfaction were central focuses of this thesis, yet the broader literature is marked by significant debates about how these constructs should be defined and measured. Although this thesis sought to strengthen measurement by using the psychometrically improved ProQOL-21 (Heritage et al., 2018) in **Chapter 2**, the instrument does not yet have the extensive validation or normative data available for more established tools, such as the K10 (Kessler et al., 2002).

Related to this field being in early stages, a limitation of the systematic review and meta-analysis conducted in **Chapter 4** was the small number and modest quality of included studies. This restricted the strength of inferences that could be drawn and limited the certainty of effect size estimates. Therefore, the evidence base used to inform the *Design* phase may have been constrained by the lack of large, rigorous body of literature to draw inferences from.

Other limitations pertain to the co-design process conducted in **Chapter 5**. While the Advisory Group played a meaningful role in intervention design, higher degrees of end-user involvement are possible (e.g., participatory governance models; Bellingham et al., 2023).

6.4 Future research directions

6.4.1 For crisis supporter wellbeing research

While researchers have been cognisant of the demanding nature of crisis line roles for almost 50 years (Cyr & Dowrick, 1991), the field of research seeking to improve crisis support wellbeing remains in its early stages. Most studies to date are cross-sectional, use convenience samples, and no initiatives to improve wellbeing have been evaluated in the literature.

While cross-sectional research, including the studies described in **Chapters 2** and **3**, provide important descriptive and associative insights, they are unable to infer causal relationships. Future research should use longitudinal designs and causal methods to investigate causality between key variables, such as stressors, coping styles, and wellbeing outcomes. Other potential risk factors identified in this thesis, such as proportion of time working remotely or delivering support over chat, as well as protective factors (e.g., social connection), should be explored to confirm if they are antecedents to compassion fatigue or psychological distress.

Beyond causal research, there is a need for the evaluation of existing organisation-level wellbeing frameworks and the continued development of novel interventions for crisis

supporters to address unmet needs. While cross-sectional studies investigated links between supervision and vicarious trauma (Dunkley & Whelan, 2006; Furlonger & Taylor, 2013), the effectiveness of supervisory frameworks should be confirmed with trial designs.

Regarding the Refill Your Cup prototype, future research should extend this work by continuing development in consultation with crisis support organisations and seeking clinical review of content to ensure fidelity to therapeutic principles. Critically, the next steps are to complete development of *Refill Your Cup*, then conduct an RCT to assess its effectiveness in improving wellbeing outcomes including compassion satisfaction, compassion fatigue, and psychological distress. Collectively, these directions move the field beyond description towards evidence-based strategies to support the wellbeing of the crisis supporter workforce.

6.4.2 Empathy-based stress research

Empathy-based stress remains an underdeveloped field of research. Despite widespread use of related constructs like compassion fatigue, vicarious trauma, and secondary traumatic stress, measurement tools and conceptual clarity are lacking (see the literature review in **Chapter 1**). Widely used measures face questions around validity and factor structure, and the constructs themselves are often used interchangeably. This definitional ambiguity has limited the field's progression and impeded recognition in formal mental health taxonomies.

The most widely-used measurement tool for compassion fatigue and compassion satisfaction, the ProQOL-V (Stamm, 2010), has received significant criticism for its psychometric properties and factor structure (Hotchkiss & Wong, 2022). These issues were addressed in the revised version used in this thesis, the ProQOL-21 (Heritage et al., 2018). For constructs like vicarious trauma or secondary traumatic stress, researchers often use PTSD instruments for measurement (e.g., the Impact of Event Scale-Revised; Weiss, 2004). Specific, reliable, and valid tools should be used for measuring empathy-based stress and there is a strong argument for the development of new measurement tools.

Robust measurement and definitional clarity may lead to formal recognition of empathy-based stress. Rigorously establishing symptom profiles for each construct could inform diagnostic criteria, and potentially, recognition in taxonomies of mental health conditions. There is precedent for such recognition of empathy-based stress, as repeated indirect exposure to work-related trauma was included in the DSM-5 as a qualifying antecedent to PTSD (American Psychiatric Association, 2022). Advancing this field requires rigorous measurement, and the establishment of robust prevalence data in key populations, with the aim to strengthen the case for prevention and treatment efforts.

6.5 Conclusion

This thesis provides the first roadmap toward the delivery of a wellbeing intervention tailored for crisis supporters, who form the backbone of crisis lines. This intervention marks a progression of this field from problem identification into the development of support strategies. Future research should continue this trajectory by designing, evaluating, and implementing interventions to promote wellbeing among crisis supporters and ensure the sustainability of crisis lines.

References

Aas, R. W., Haveraaen, L., Sagvaag, H., & Thørrisen, M. M. (2017). The influence of alcohol consumption on sickness presenteeism and impaired daily activities. The WIRUS screening study. *PLoS ONE*, *12*(10), 1–14. https://doi.org/10.1371/journal.pone.0186503

Achnak, S., & Vantilborgh, T. (2021). Do individuals combine different coping strategies to manage their stress in the aftermath of psychological contract breach over time? A longitudinal study. *Journal of Vocational Behavior*, *131*, 103651. https://doi.org/10.1016/j.jvb.2021.103651

Aguirre, R. T. P., & Bolton, K. M. W. (2013). Why do they do it? A qualitative interpretive meta-synthesis of crisis volunteers' motivations. *Social Work Research*, *37*(4), 327–338. https://doi.org/10.1093/swr/svt035

Aldrich, R. S., & Cerel, J. (2020). Occupational suicide exposure and impact on mental health: Examining differences across helping professions. *Omega*. https://doi.org/10.1177/0030222820933019

Al-Kayed, J., Okoli, C. C., Williams, L. B., Ickes, M. J., & Rayens, M. K. (2025). The association between work- and trauma-related factors and risky alcohol use among health care providers: A systematic review. *Journal of Addictions Nursing*, *36*(2), 121–143. https://doi.org/10.1097/JAN.0000000000000620

Allan, B., Tilley, P. M., & Hendriks, J. (2025). Sexual content in Australian crisis telehealth. *Clinical eHealth*, 8, 103–116. https://doi.org/10.1016/j.ceh.2025.03.003

American Psychiatric Association. (2022). *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5-TR). American Psychiatric Association Publishing. https://doi.org/10.1176/appi.books.9780890425787

Amiri, S., & Behnezhad, S. (2020). Alcohol consumption and sick leave: A meta-analysis. *Journal of Addictive Diseases*, *38*(2), 100–112. https://doi.org/10.1080/10550887.2020.1724606

Anderson, G. S., Di Nota, P. M., Groll, D., & Carleton, R. N. (2020). Peer support and crisis-focused psychological interventions designed to mitigate post-traumatic stress injuries among public safety and frontline healthcare personnel: A systematic review. *International Journal of Environmental Research and Public Health*, *17*(20), 1–20. https://doi.org/10.3390/ijerph17207645

Andrews, G., & Slade, T. (2001). Interpreting scores on the Kessler Psychological Distress Scale (K10). *Australian and New Zealand Journal of Public Health*, *25*(6), 494–497. https://doi.org/10.1111/j.1467-842X.2001.tb00310.x

Association, A. P. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision). American Psychiatric Association.

Australian Bureau of Statistics. (2023a). *Causes of Death, Australia, 2023*. https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release

Australian Bureau of Statistics. (2023b). *National Study of Mental Health and Wellbeing, 2020–2022.* Retrieved January 16, 2024, from https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/latest-release

Australian Bureau of Statistics. (2022). *Section of State Range*. Australian Statistical Geography Standard (ASGS): Edition 3, July 2021 – June 2026. https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026/significant-urban-areas-urban-centres-and-localities-section-state/section-state-range

Australian Government Department of Health and Aged Care. (2020). *National Suicide Prevention Strategy for Australia's health system: 2020–2023*.

https://www.health.gov.au/sites/default/files/2022-12/national-suicide-prevention-strategy-for-australia-s-health-system-2020-2023.pdf

Australian Government Department of Health and Aged Care. (2022). *National Mental Health Workforce Strategy 2022–2032*. https://www.health.gov.au/resources/publications/national-mental-health-workforce-strategy-2022-2032

Australian Institute of Family Studies. (2023). *Helplines, telephone and online counselling services for children, young people and adults*. https://aifs.gov.au/resources/resource-sheets/helplines-telephone-and-online-counselling-services-children-young-people

Australian Institute of Health and Welfare. (2025, April 9). *Deaths in Australia, Summary*. https://www.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/contents/summary

Automattic. (2022). *Sensei LMS* [Computer software]. https://senseilms.com/

Batchelor, S., Stoyanov, S., Pirkis, J., & Kõlves, K. (2021). Use of Kids Helpline by children and young people in Australia during the COVID-19 pandemic. *Journal of Adolescent Health*, *68*(6), 1067–1074. https://doi.org/10.1016/j.jadohealth.2021.03.015

Bellingham, B., Elder, E., Foxlewin, B., Gale, N., Rose, G., Sam, K., Thorburn, K., & River, J. (2023). *Co-Design Kickstarter: A short guide to get started, and become more familiar with co-design research*. Community Mental Health Drug and Alcohol Research Network. https://opus.lib.uts.edu.au/handle/10453/170871

Belogianni, K., Ooms, A., Lykou, A., Nikoletou, D., & Jayne Moir, H. (2023). An online game-based intervention using quizzes to improve nutrition and physical activity outcomes among university students. *Health Education Journal*, *82*(6), 636–650. https://doi.org/10.1177/00178969231179032

Benz, C., Scott-Jeffs, W., McKercher, K. A., Welsh, M., Norman, R., Hendrie, D., Locantro, M., & Robinson, S. (2024). Community-based participatory-research through co-design:

Supporting collaboration from all sides of disability. *Research Involvement and Engagement*, *10*(1), 47. https://doi.org/10.1186/s40900-024-00573-3

Bercier, M. L., & Maynard, B. R. (2015). Interventions for secondary traumatic stress with mental health workers: A systematic review. *Research on Social Work Practice*, *25*(1), 81–89. https://doi.org/10.1177/1049731513517142

Beyond Blue. (2024). *Annual highlights 2023–24*. https://www.beyondblue.org.au/

Billings, J., Seif, N. A., Hegarty, S., Ondruskova, T., Soulios, E., Bloomfield, M., & Greene, T. (2020). What support do frontline workers want? A qualitative study of health and social care workers' experiences and views of psychosocial support during the COVID-19 pandemic. *PloS one*, *16*(9), e0256454. https://doi.org/10.1101/2020.11.05.20226522

Bonanno, G. A., & Burton, C. L. (2013). Regulatory flexibility: An individual differences perspective on coping and emotion regulation. *Perspectives on Psychological Science*, *8*(6), 591–612. https://doi.org/10.1177/1745691613504116

Bonumwezi, J. L., Tramutola, D., Lawrence, J., Kobezak, H. M., & Lowe, S. R. (2022). Posttraumatic stress disorder symptoms, work-related trauma exposure, and substance use in first responders. *Drug and Alcohol Dependence*, *237*, 109439. https://doi.org/10.1016/j.drugalcdep.2022.109439

Bradford, S., & Rickwood, D. (2015). Young people's views on electronic mental health assessment: Prefer to type than talk? *Journal of Child and Family Studies*, *24*(5), 1213–1221. https://doi.org/10.1007/s10826-014-9929-0

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.

Braun, V., & Clarke, V. (2021). Can I use TA? Should I use TA? Should I *not* use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches.

Counselling and Psychotherapy Research, *21*(1), 37–47. https://doi.org/10.1002/capr.12360

Breen, T. (2021). Calling for help: How crisis lines support Victorians' mental health. *Nursing the Elderly : In Hospital, Homes and the Community*, *2*(5), 33.

Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, *35*(3), 155–163. https://doi.org/10.1007/s10615-007-0091-7

Brinkborg, H., Michanek, J., Hesser, H., & Berglund, G. (2011). Acceptance and commitment therapy for the treatment of stress among social workers: A randomized controlled trial. *Behaviour Research and Therapy*, *49*(6–7), 389–398. https://doi.org/10.1016/j.brat.2011.03.009

Britton, P. C., Kopacz, M. S., Stephens, B., & Bossarte, R. M. (2016). Veterans crisis line callers with and without prior VHA service use. *Archives of Suicide Research*, *20*(3), 314–322. https://doi.org/10.1080/13811118.2015.1017681

Brotherdale, R., Berry, K., Branitsky, A., & Bucci, S. (2024). Co-producing digital mental health interventions: A systematic review. *Digital Health*, *10*, 20552076241239172. https://doi.org/10.1177/20552076241239172

Brown, M., Hooper, N., Eslambolchilar, P., & John, A. (2020). Development of a web-based acceptance and commitment therapy intervention to support lifestyle behavior change and well-being in health care staff: Participatory design study. *JMIR Formative Research*, *4*(11), e22507. https://doi.org/10.2196/22507

Brülhart, M., Klotzbücher, V., Lalive, R., & Reich, S. K. (2021). Mental health concerns during the COVID-19 pandemic as revealed by helpline calls. *Nature*, *600*(7887), 121–126. https://doi.org/10.1038/s41586-021-04099-6

Button, P., Fallon, L., & Fowler, K. (2023). The impact of perceived social support and coping on distress in a sample of Atlantic Canadian health professional students during COVID-19 compared to pre-COVID peers. *BMC Psychology*, *11*(1), 175. https://doi.org/10.1186/s40359-023-01218-y

Carleton, R. N., Afifi, T. O., Taillieu, T., Turner, S., Krakauer, R., Anderson, G. S., MacPhee, R. S., Ricciardelli, R., Cramm, H. A., Groll, D., & McCreary, D. R. (2019). Exposures to potentially traumatic events among public safety personnel in Canada. *Canadian Journal of Behavioural Science*, *51*(1), 37–52. https://doi.org/10.1037/cbs0000115

Caron, J., & Liu, A. (2010). A descriptive study of the prevalence of psychological distress and mental disorders in the Canadian population: Comparison between low-income and non-low-income populations. *Chronic Diseases and Injuries in Canada*, *30*(3), 148–149. https://doi.org/10.24095/hpcdp.30.3.03

Carrick, L. (2014). Person-centred counsellors' experiences of working with clients in crisis: A qualitative interview study. *Counselling and Psychotherapy Research*, *14*(4), 272–280. https://doi.org/10.1080/14733145.2013.819931

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine*, *4*(1), 92–100. https://doi.org/10.1207/s15327558ijbm0401_6

Chalmers, I., & Glasziou, P. (2009). Avoidable waste in the production and reporting of research evidence. *Lancet*, *374*(9683), 86–89. *374*. https://doi.org/10.1016/S0140-6736(09)60329-9

Chandrasekaran, A., Currano, R., Batool, V., Chen, K., Murnane, E. L., Sirkin, D., & Mauriello, M. L. (2024). Therapy for therapists: Design opportunities to support the psychological well-being of mental health workers. *Proceedings of the ACM on Human-Computer Interaction*, *8*(CSCW2), 1–34. https://doi.org/10.1145/3686957

Chelidoni, O., Plans, D., Ponzo, S., Morelli, D., & Cropley, M. (2020). Exploring the effects of a brief biofeedback breathing session delivered through the Biobase app in facilitating employee stress recovery: Randomized experimental study. *JMIR mHealth and uHealth*, *8*(10), e19412. https://doi.org/10.2196/19412

Chiang, B., Law, Y. W., & Yip, P. S. F. (2024). Using discrete-event simulation to model web-based crisis counseling service operation: Evaluation study. *JMIR Formative Research*, *8*, e46823. https://doi.org/10.2196/46823

Cieslak, R., Shoji, K., Douglas, A., Melville, E., Luszczynska, A., & Benight, C. C. (2014). A meta-analysis of the relationship between job burnout and secondary traumatic stress among workers with indirect exposure to trauma. *Psychological Services*, *11*(1), 75–86. https://doi.org/10.1037/a0033798

Coetzee, S. K., & Klopper, H. C. (2010). Compassion fatigue within nursing practice: A concept analysis. *Nursing & Health Sciences*, *12*(2), 235–243. https://doi.org/10.1111/j.1442-2018.2010.00526.x

Cogan, N., Whittaker, S., Craig, A., Milligan, L., McCluskey, R., Burns, T., Kirk, A., Rasmussen, S., & Hodgson, W. (2025). Designing digital mental health support for paramedics exposed to trauma: Qualitative study of lived experiences and design preferences. *JMIR Human Factors, 12,* e76158. https://doi.org/10.2196/76158

Cohen, K., & Collens, P. (2013). The impact of trauma work on trauma workers: A metasynthesis on vicarious trauma and vicarious posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, *5*(6), 570–580. https://doi.org/10.1037/a0030388

Comtois, D. (2019). *summarytools: Tools to quickly and neatly summarize data*. https://CRAN.R-project.org/package=summarytools

Connolly, S. M., Vanchu-Orosco, M., Warner, J., Seidi, P. A., Edwards, J., Boath, E., & Irgens, A. C. (2021). Mental health interventions by lay counsellors: A systematic review and meta-analysis. *Bulletin of the World Health Organization*, *99*(8), 572–582. https://doi.org/10.2471/BLT.20.269050

Cooney, A., & McCashin, D. (2023). Experiences and wellbeing of Samaritans crisis line volunteers in Ireland during the COVID-19 pandemic: A qualitative study. *International Journal of Social Psychiatry*, *69*(2), 322–333. https://doi.org/10.1177/00207640221089538

Coulter, R. W. S., Dougherty, M., Clark, M. B., Wilson, A., Miller, E., & Ragavan, M. I. (2024). Online human-centered design methods are acceptable, appropriate, and feasible for generating adolescent relationship abuse intervention ideas with sexual and gender diverse youth. *Journal of Adolescent Health*, *75*(4), 656–664. https://doi.org/10.1016/j.jadohealth.2024.06.001

Cyr, C., & Dowrick, P. W. (1991). Burnout in crisisline volunteers. *Administration and Policy in Mental Health*, *18*(5), 343–354. https://doi.org/10.1007/BF00707000

Dash Bhatt, A. (2024). Appreciative Inquiry: A systematic review and future research agenda. *Academy of Management Proceedings*, *2024*(1), 15747. https://doi.org/10.5465/AMPROC.2024.15747abstract

Dias, C., Cruz, J. F., & Fonseca, A. M. (2012). The relationship between multidimensional competitive anxiety, cognitive threat appraisal, and coping strategies: A multi-sport study. *International Journal of Sport and Exercise Psychology*, *10*(1), 52–65. https://doi.org/10.1080/1612197X.2012.645131

Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, *2*(3), 222–235. https://doi.org/10.5502/ijw.v2i3.4

Domecq, J. P., Prutsky, G., Elraiyah, T., Wang, Z., Nabhan, M., Shippee, N., Brito, J. P., Boehmer, K., Hasan, R., Firwana, B., Erwin, P., Eton, D., Sloan, J., Montori, V., Asi, N., Abu Dabrh, A. M., & Murad, M. H. (2014). Patient engagement in research: A systematic review. *BMC Health Services Research*, *14*(1). https://doi.org/10.1186/1472-6963-14-89

Donker, T., Griffiths, K. M., Cuijpers, P., & Christensen, H. (2009). Psychoeducation for depression, anxiety and psychological distress: A meta-analysis. *BMC Medicine*, *7*(1), 79. https://doi.org/10.1186/1741-7015-7-79

Donkers, M. A., Gilissen, V. J. H. S., Candel, M. J. J. M., Van Dijk, N. M., Kling, H., Heijnen-Panis, R., Pragt, E., Van Der Horst, I., Pronk, S. A., & Van Mook, W. N. K. A. (2021). Moral distress and ethical climate in intensive care medicine during COVID-19: A nationwide study. *BMC Medical Ethics*, *22*(1), 73. https://doi.org/10.1186/s12910-021-00641-3

Donnellan, A., Bradshaw, D., & McMahon, J. (2023). Social support and self-efficacy serially mediate the association of strength of identification with text-based crisis support line volunteers' compassion fatigue and compassion satisfaction. *Journal of Community & Applied Social Psychology*, casp.2735. https://doi.org/10.1002/casp.2735

Donnelly, E. A., Bradford, P., Davis, M., Hedges, C., & Klingel, M. (2016). Predictors of posttraumatic stress and preferred sources of social support among Canadian paramedics. *CJEM*, *18*(3), 205–212. https://doi.org/10.1017/cem.2015.92

Downs, S. H., & Black, N. (1998). The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiology & Community Health*, *52*(6), 377–384. https://doi.org/10.1136/jech.52.6.377

Dunkley, J., & Whelan, T. A. (2006). Vicarious traumatisation in telephone counsellors: Internal and external influences. *British Journal of Guidance and Counselling*, *34*(4), 451–469. https://doi.org/10.1080/03069880600942574

Eng, L., Nordström, J., & Schad, E. (2021). Incorporating compassion into compassion fatigue: The development of a new scale. *Journal of Clinical Psychology*, *77*(9), 2109–2129. https://doi.org/10.1002/jclp.23113

Evans, K. H., Larson, K. L., & Sitzman, K. (2025). "You can't pour from an empty cup": nurse experiences 2 years into the COVID-19 pandemic. *International Journal for Human Caring*, *29*(1), 10–18. https://doi.org/10.20467/IJHC-2023-0034

Ewer, P. L., Teesson, M., Sannibale, C., Roche, A., & Mills, K. L. (2015). The prevalence and correlates of secondary traumatic stress among alcohol and other drug workers in Australia: Secondary traumatic stress. *Drug and Alcohol Review*, *34*(3), 252–258. https://doi.org/10.1111/dar.12204

Fendel, J. C., Bürkle, J. J., & Göritz, A. S. (2021). Mindfulness-based interventions to reduce burnout and stress in physicians: A systematic review and meta-analysis. *Academic Medicine*, *96*(5), 751–764. https://doi.org/10.1097/ACM.0000000000003936

Figley, C. R. (Ed.). (1995). *Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized*. Brunner/Mazel.

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, *55*, 745–774. https://doi.org/10.1146/annurev.psych.55.090902.141456

Furlonger, B., & Taylor, W. (2013). Supervision and the management of vicarious traumatisation among australian telephone and online counsellors. *Australian Journal of Guidance and Counselling*, *23*(1), 82–94. https://doi.org/10.1017/jgc.2013.3

Furukawa, T. A., Kessler, R. C., Slade, T., & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine*, *33*(2), 357–362. https://doi.org/10.1017/S0033291702006700

Ganjeali, S., Farsi, Z., Sajadi, S. A., & Zarea, K. (2022). The effect of the demonstration-based progressive muscle relaxation technique on stress and anxiety in nurses caring for COVID-19 patients: A randomized clinical trial. *BMC Psychiatry*, *22*(1), 791. https://doi.org/10.1186/s12888-022-04456-3

Geoffrion, S., Lamothe, J., Morizot, J., & Giguère, C. É. (2019). Construct validity of the Professional Quality of Life (ProQoL) scale in a sample of child .protection workers. *Journal of Traumatic Stress*, *32*(4), 566–576. https://doi.org/10.1002/jts.22410

Gilat, I., & Rosenau, S. (2011). Volunteers' perspective of effective interactions with helpline callers: Qualitative study. *British Journal of Guidance and Counselling*, *39*(4), 325–337. https://doi.org/10.1080/03069885.2011.567327

Gilmore, A., Saheb, R., & Reis, A. (2022). Exploring experiences of a telephone crisis support workplace training program in Australia. *Health & Social Care in the Community,* 30(6), e4574–e4584. https://doi.org/10.1111/hsc.13861

Gould, M. S., Chowdhury, S., Lake, A. M., Galfalvy, H., Kleinman, M., Kuchuk, M., & McKeon, R. (2021). National Suicide Prevention Lifeline crisis chat interventions: Evaluation of

chatters' perceptions of effectiveness. *Suicide and Life-Threatening Behavior*, *51*(6), 1126–1137. https://doi.org/10.1111/sltb.12795

Gould, M. S., Cross, W., Pisani, A. R., Munfakh, J. L., & Kleinman, M. (2013). Impact of applied suicide intervention skills training on the national suicide prevention lifeline. *Suicide and Life-Threatening Behavior*, *43*(6), 676–691. https://doi.org/10.1111/sltb.12049

Gould, M. S., Kalafat, J., Munfakh, J. L., & Kleinman, M. (2007). An evaluation of crisis hotline outcomes part 2: Suicidal callers. *Suicide and Life-Threatening Behavior*, *37*(3), 338–352. https://doi.org/10.1521/suli.2007.37.3.338

Gregory, A. (2015). Yoga and mindfulness program: The effects on compassion fatigue and compassion satisfaction in social workers. *Journal of Religion & Spirituality in Social Work: Social Thought*, *34*(4), 372–393. https://doi.org/10.1080/15426432.2015.1080604

Greinacher, A., Helaß, M., Nikendei, C., Müller, A., Mulfinger, N., Gündel, H., & Maatouk, I. (2022). The impact of personality on intention to leave the nursing profession: A structural equation model. *Journal of Clinical Nursing*, *31*(11–12), 1570–1579. https://doi.org/10.1111/jocn.16010

Guillaumie, L., Boiral, O., & Champagne, J. (2017). A mixed-methods systematic review of the effects of mindfulness on nurses. *Journal of Advanced Nursing*, *73*(5), 1017–1034. https://doi.org/10.1111/jan.13176

Hallinan, S., Shiyko, M. P., Volpe, R., & Molnar, B. E. (2019). Reliability and validity of the Vicarious Trauma Organizational Readiness Guide (VT-ORG). *American Journal of Community Psychology, 64*(3–4), 481–493. https://doi.org/10.1002/ajcp.12395

Harris, R. (2006). Embracing your demons: an overview of acceptance and commitment therapy. *Psychotherapy in Australia*, 12(4), 70–76. https://doi.org/10.3316/informit.545561433272993

Harvey, S. B., Modini, M., Joyce, S., Milligan-Saville, J. S., Tan, L., Mykletun, A., Bryant, R. A., Christensen, H., & Mitchell, P. B. (2017). Can work make you mentally ill? A systematic

meta-review of work-related risk factors for common mental health problems. *Occupational and Environmental Medicine*, *74*(4), 301–310. https://doi.org/10.1136/oemed-2016-104015

Haugen, P. T., McCrillis, A. M. A. M., Smid, G. E., & Nijdam, M. J. M. J. (2017). Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis. *Journal of Psychiatric Research*, *94*, 218–229. https://doi.org/10.1016/j.jpsychires.2017.08.001

Hawgood, J., Spafford, S., Evans, A., Webster, A., & Koo, Y. W. (2022). Suicide risk assessment fears, attitudes and behaviours of Lifeline crisis supporters. *Health & Social Care in the Community, 30*(5), e2617–e2628. https://doi.org/10.1111/hsc.13923

Hawton, K. (2007). Restricting access to methods of suicide rationale and evaluation of this approach to suicide prevention. *Crisis*, *28*(SUPPL. 1), 4–9. https://doi.org/10.1027/0227-5910.28.S1.4

Hayes, S. C. (2005). G*et out of your mind and into your life: The new acceptance and commitment therapy*. New Harbinger Publications.

Hayes, S. C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B. S., Fisher, G., Masuda, A., Pistorello, J., Rye, A. K., Berry, K., & Niccolls, R. (2004). The impact of acceptance and commitment training and multicultural training on the stigmatizing attitudes and professional burnout of substance abuse counselors. *Behavior Therapy*, *35*(4), 821–835. https://doi.org/10.1016/S0005-7894(04)80022-4

Hayes, S. C., Bond, F. W., Barnes-Holmes, D., & Austin, J. (Eds). (2006). *Acceptance and mindfulness at work: Applying acceptance and commitment therapy and relational frame theory to organizational behavior management* (1st ed). Routledge. https://doi.org/10.4324/9781315808383

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1–25. https://doi.org/10.1016/j.brat.2005.06.006

Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Elsevier Science & Technology. http://ebookcentral.proquest.com/lib/usyd/detail.action?docID=1901162

Hemsworth, D., Baregheh, A., Aoun, S., & Kazanjian, A. (2018). A critical enquiry into the psychometric properties of the professional quality of life scale (ProQol-5) instrument. *Applied Nursing Research*, *39*(September 2017), 81–88. https://doi.org/10.1016/j.apnr.2017.09.006

Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, *292*, 114523. https://doi.org/10.1016/j.socscimed.2021.114523

Heritage, B., Rees, C. S., & Hegney, D. G. (2018). The ProQOL-21: A revised version of the Professional Quality of Life (ProQOL) scale based on Rasch analysis. *PLoS ONE, 13*(2), e0193478. https://doi.org/10.1371/journal.pone.0193478

Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (Eds). (2024). *Cochrane handbook for systematic reviews of interventions (Version 6.5, updated August 2024)*. Cochrane. https://www.training.cochrane.org/handbook

Hoffberg, A. S., Stearns-Yoder, K. A., & Brenner, L. A. (2020). The effectiveness of crisis line services: A systematic review. *Frontiers in Public Health*, *7*. https://doi.org/10.3389/fpubh.2019.00399

Holahan, C. J., Moos, R. H., Holahan, C. K., Brennan, P. L., & Schutte, K. K. (2005). Stress generation, avoidance coping, and depressive symptoms: A 10-year model. *Journal of Consulting and Clinical Psychology*, *73*(4), 658–666. https://doi.org/10.1037/0022-006X.73.4.658

Hosseinzadeh Asl, N. R. (2022). A randomized controlled trial of a mindfulness-based intervention in social workers working during the COVID-19 crisis. *Current Psychology (New Brunswick)*, *41*(11), 8192–8199. https://doi.org/10.1007/s12144-021-02150-3

Hotchkiss, J. T., & Wong, M. Y. C. (2022). Factorial structure of the ProQOL—Systematic meta-analysis and integration of 27 international factor analysis studies. *Trends in Psychology, 32*, 807–838. https://doi.org/10.1007/s43076-022-00184-5

Humeniuk, R., Ali, R., Babor, T. F., Farrell, M., Formigoni, M. L., Jittiwutikarn, J., De Lacerda, R. B., Ling, W., Marsden, J., Monteiro, M., Nhiwatiwa, S., Pal, H., Poznyak, V., & Simon, S. (2008). Validation of the alcohol, smoking and substance involvement screening test (ASSIST). *Addiction*, *103*(6), 1039–1047. https://doi.org/10.1111/j.1360-0443.2007.02114.x

Humeniuk, R., Henry-Edwards, S., Ali, R., Poznyak, V., & Monteiro, M. G.. (2010). *The Alcohol, Smoking and Substance involvement Screening Test (ASSIST): Manual for use in primary care*. World Health Organization.

Humer, E., Pieh, C., Kisler, I.-M., Schimböck, W., & Schadenhofer, P. (2022). A longitudinal study on mental well-being, perceived stress level and job-related meaningfulness of Austrian telephone emergency service counselors during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *19*(6), 3166. https://doi.org/10.3390/ijerph19063166

Huppert, F. A., & So, T. T. C. (2013). Flourishing across Europe: Application of a new conceptual framework for defining well-being. *Social Indicators Research*, *110*(3), 837–861. https://doi.org/10.1007/s11205-011-9966-7

International Association for Suicide Prevention. (2025). *Crisis centres & helplines*. IASP. https://www.iasp.info/crisis-centres-helplines/

International Federation of Telephone Emergency Services. (2024). *About*. IFOTES. https://www.ifotes.org/en/about

Jamal, D. Y., Yaseen, D. F., & Khalid, D. M. (2022). A preliminary validation of the Brief COPE inventory for assessing coping strategies among Pakistani house job doctors. *Journal of Professional & Applied Psychology*, *3*(2), 267–275. https://doi.org/10.52053/jpap.v3i2.108

Jelen, A., Goldfarb, R., Rosart, J., Graham, L., & Rubin, B. B. (2024). A qualitative co-design-based approach to identify sources of workplace-related distress and develop well-being strategies for cardiovascular nurses, allied health professionals, and physicians. *BMC Health Services Research*, *24*(1), 246. https://doi.org/10.1186/s12913-024-10669-x

Jones, N., Seddon, R., Fear, N. T., McAllister, P., Wessely, S., & Greenberg, N. (2012). Leadership, cohesion, morale, and the mental health of UK armed forces in Afghanistan. *Psychiatry: Interpersonal and Biological Processes*, *75*(1), 49–59. https://doi.org/10.1521/psyc.2012.75.1.49

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144–156. https://doi.org/10.1093/clipsy.bpg016

Kalafat, J., Gould, M. S., Munfakh, J. L. H., & Kleinman, M. (2007). An evaluation of crisis hotline outcomes part 1: Nonsuicidal crisis callers. *Suicide and Life-Threatening Behavior*, *37*(3), 322–337. https://doi.org/10.1521/suli.2007.37.3.322

Kaur, K. (2021). A correlational study between coping strategies and compassion satisfaction among crisis helpline volunteers. *International E-Journal of Science, Medicine & Education*, *15*(1), 19–27. https://doi.org/10.56026/imu.15.1.19

Keramat, S. A., Comans, T., Pearce, A., Basri, R., Hashmi, R., & Dissanayaka, N. N. (2025). Psychological distress and productivity loss: A longitudinal analysis of Australian working adults. *The European Journal of Health Economics*. https://doi.org/10.1007/s10198-025-01764-9

Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., Furukawa, T. A., Gureje, O., Hinkov, H., Hu, C. Y., Lara, C., Lee, S., Mneimneh, Z., Myer, L., Oakley-Browne, M., Posada-Villa, J., Sagar, R., Viana, M. C., & Zaslavsky, A. M. (2011). Screening for serious mental illness in the general population with the K6 screening scale: Results from the WHO World Mental Health (WMH) survey initiative. *International Journal of Methods in Psychiatric Research*, *20*(1), 62. https://doi.org/10.1002/mpr.333

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, *43*(2), 207. https://doi.org/10.2307/3090197

Kiepek, N., Harris, J., Beagan, B., & Buchanan, M. (2019). Substance use by social workers and implications for professional regulation. *Drugs and Alcohol Today*, *19*(2), 147–159. https://doi.org/10.1108/DAT-08-2018-0040

Kim, J., Chesworth, B., Franchino-olsen, H., & Macy, R. J. (2021). *A scoping review of vicarious trauma interventions for service providers working with people who have experienced traumatic events*. https://doi.org/10.1177/1524838021991310

King, R., Nurcombe, B., Bickman, L., Hides, L., & Reid, W. (2003). Telephone counselling for adolescent suicide prevention: changes in suicidality and mental state from beginning to end of a counselling session. *Suicide and Life-Threatening Behavior*, *33*(4), 400–411. https://doi.org/10.1521/suli.33.4.400.25235

Kinman, G., & Grant, L. (2017). Building resilience in early-career social workers: Evaluating a multi-modal intervention. *British Journal of Social Work*, *47*(7), 1979–1998.

Kinman, G., Grant, L., & Kelly, S. (2020). 'It's my secret space': The benefits of mindfulness for social workers. *British Journal of Social Work*, *50*(3), 758–777. https://doi.org/10.1093/bjsw/bcz073

Kinzel, A., & Nanson, J. (2000). Education and debriefing: Strategies for preventing crises in crisis-line volunteers. *Crisis*, *21*(3), 126–134. https://doi.org/10.1027//0227-5910.21.3.126

Kitchingman, T. A., Caputi, P., Woodward, A., Wilson, C. J., & Wilson, I. (2018a). The impact of their role on telephone crisis support workers' psychological wellbeing and functioning: Quantitative findings from a mixed methods investigation. *PLOS ONE*, *13*(12), e0207645. https://doi.org/10.1371/journal.pone.0207645

Kitchingman, T. A., Caputi, P., Woodward, A., Wilson, I., & Wilson, C. (2024). The impact of their role on telephone crisis support workers' psychological wellbeing and functioning:

Qualitative findings from a mixed methods investigation. *Death Studies*, 1–14. https://doi.org/10.1080/07481187.2024.2376038

Kitchingman, T. A., Wilson, C. J., Caputi, P., Wilson, I., & Woodward, A. (2017). Testing a model of functional impairment in telephone crisis support workers. *Crisis*, *38*(6), 403–412. https://doi.org/10.1027/0227-5910/a000435

Kitchingman, T. A., Wilson, C. J., Caputi, P., Wilson, I., & Woodward, A. (2018b). Telephone crisis support workers' psychological distress and impairment: A systematic review. *Crisis*, *39*(1), 13–26. https://doi.org/10.1027/0227-5910/a000454

Kitchingman, T. A., Wilson, C. J., Woodward, A., Caputi, P., & Wilson, I. (2018c). Telephone crisis support workers-intentions to use recommended skills while experiencing functional impairment. *Crisis*, *39*(3), 218–223. https://doi.org/10.1027/0227-5910/a000490

Klimczak, K. S., San Miguel, G. G., Mukasa, M. N., Twohig, M. P., & Levin, M. E. (2023). A systematic review and meta-analysis of self-guided online acceptance and commitment therapy as a transdiagnostic self-help intervention. *Cognitive Behaviour Therapy*, *52*(3), 269–294. https://doi.org/10.1080/16506073.2023.2178498

Korakakis, V., Whiteley, R., Tzavara, A., & Malliaropoulos, N. (2018). The effectiveness of extracorporeal shockwave therapy in common lower limb conditions: A systematic review including quantification of patient-rated pain reduction. *British Journal of Sports Medicine*, *52*(6), 387–407. https://doi.org/10.1136/bjsports-2016-097347

Krippendorff, K. (2022). *Content analysis: An introduction to its methodology* (Fourth Edition). SAGE Publications, Inc. https://doi.org/10.4135/9781071878781

Lambert, J., Loades, M., Marshall, N., Higson-Sweeney, N., Chan, S., Mahmud, A., Pile, V., Maity, A., Adam, H., Sung, B., Luximon, M., MacLennan, K., Berry, C., & Chadwick, P. (2025). Investigating the efficacy of the web-based common elements toolbox (COMET) single-session interventions in improving UK university student well-being: Randomized controlled trial. *Journal of Medical Internet Research*, *27*, e58164. https://doi.org/10.2196/58164

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Lee-Cheong, S., Alaverdashvili, M., Jardine, M., Maharaj, V. S., & Kolla, N. (2025). Burnout and professional quality of life amongst crisis hotline responders: A cross-sectional survey in canada during COVID-19. *Healthcare*, *13*(9), 1025. https://doi.org/10.3390

Lifeline Australia. (2022). *Lifeline annual report 2022*. https://www.lifeline.org.au/media/hikdmw5w/lifeline-annual-report-2022.pdf

Lifeline Australia. (2024). *Annual report 2023-2024*. https://www.lifeline.org.au/about/governance/annual-reports/

Lifeline Australia. (2025). *Lifeline Policies*. https://www.lifeline.org.au/policies/

LifeLine International. (2024). *Our network*. LifeLine International. https://lifeline-international.com/our-network/

Lipsa, J. M., Rajkumar, E., Gopi, A., & Romate, J. (2024). Effectiveness of psychological interventions for compassion fatigue: A systematic review and meta-analysis. *Journal of Occupational Health*, uiae061. https://doi.org/10.1093/joccuh/uiae061

Lipschitz, J. M., Pike, C. K., Hogan, T. P., Murphy, S. A., & Burdick, K. E. (2023). The engagement problem: A review of engagement with digital mental health interventions and recommendations for a path forward. *Current Treatment Options in Psychiatry*, *10*(3), 119–135. https://doi.org/10.1007/s40501-023-00297-3

Lumivero. (2023). *NVivo* (Version 14). Lumivero. https://www.lumivero.com

Lund, I., Moan, I. S., & Edvardsen, H. M. E. (2019). The relative impact of smoking, alcohol use and drug use on general sickness absence among Norwegian employees. *BMC Public Health*, *19*(1), 1–8. https://doi.org/10.1186/s12889-019-6891-1

Maddock, A., McGuigan, K., & McCusker, P. (2023). A randomised trial of mindfulness-based social work and self-care with social workers. *Curr Psychol*, *42*, 9170–9183. https://doi.org/10.1007/s12144-023-04410-w

Maple, J.-L., Willis, K., Lewis, S., Putland, M., Baldwin, P., Bismark, M., Harrex, W., Johnson, D., Karimi, L., & Smallwood, N. (2024). Healthcare workers' perceptions of strategies

supportive of their mental health. *Journal of Medicine, Surgery, and Public Health*, *2*, 100049. https://doi.org/10.1016/j.glmedi.2024.100049

Marshall, R. E., Milligan-Saville, J., Petrie, K., Bryant, R. A., Mitchell, P. B., & Harvey, S. B. (2021). Mental health screening amongst police officers: Factors associated with under-reporting of symptoms. *BMC Psychiatry*, *21*(1), 135. https://doi.org/10.1186/s12888-021-03125-1

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*(2), 99–113. https://doi.org/10.1002/job.4030020205

Mason-Stephens, J., Iasiello, M., Ali, K., Van Agteren, J., & Fassnacht, D. B. (2023). The importance of measuring mental wellbeing in the context of psychological distress: Using a theoretical framework to test the dual-continua model of mental health. *Behavioral Sciences*, *13*(5), 436. https://doi.org/10.3390/bs13050436

McCann, I. L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, *3*(1), 131–149. https://doi.org/10.1002/jts.2490030110

McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica*, 276–282. https://doi.org/10.11613/BM.2012.031

McNeely, J., Strauss, S. M., Wright, S., Rotrosen, J., Khan, R., Lee, J. D., & Gourevitch, M. N. (2014). Test–retest reliability of a self-administered Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in primary care patients. *Journal of Substance Abuse Treatment*, *47*(1), 93–101. https://doi.org/10.1016/j.jsat.2014.01.007

Meier, A. (2000). Offering social support via the internet: A case study of an online support group for social workers. *Journal of Technology in Human Services*, *17*(2–3), 237–266. https://doi.org/10.1300/J017v17n02_08

Merriel, A., Wilson, A., Decker, E., Hussein, J., Larkin, M., Barnard, K., O’Dair, M., Costello, A., Malata, A., & Coomarasamy, A. (2022). Systematic review and narrative synthesis of the

impact of Appreciative Inquiry in healthcare. *BMJ Open Quality*, *11*(2), e001911. https://doi.org/10.1136/bmjoq-2022-001911

Milne, D. (2007). An empirical definition of clinical supervision. *British Journal of Clinical Psychology*, *46*(4), 437–447. https://doi.org/10.1348/014466507X197415

Mishara, B. L., & Giroux, G. (1993). The relationship between coping strategies and perceived stress in telephone intervention volunteers at a suicide prevention center. *Suicide and Life-Threatening Behavior*, *23*(3), 221–229. https://doi.org/10.1111/j.1943-278X.1993.tb00181.x

Mokkenstorm, J. K., Eikelenboom, M., Huisman, A., Wiebenga, J., Gilissen, R., Kerkhof, A. J. F. M., & Smit, J. H. (2017). Evaluation of the 113online suicide prevention crisis chat service: outcomes, helper behaviors and comparison to telephone hotlines. *Suicide and Life-Threatening Behavior*, *47*(3), 282–296. https://doi.org/10.1111/sltb.12286

Mooney, C., Fetter, K., Gross, B. W., Rinehart, C., Lynch, C., & Rogers, F. B. (2017). A preliminary analysis of compassion satisfaction and compassion fatigue with considerations for nursing unit specialization and demographic factors. *Journal of Trauma Nursing*, *24*(3), 158–163. https://doi.org/10.1097/JTN.0000000000000284

Moreno, C. R. C., Marqueze, E. C., Sargent, C., Wright Jr, K. P., Ferguson, S. A., & Tucker, P. (2019). Working Time Society consensus statements: Evidence-based effects of shift work on physical and mental health. *Industrial Health*, *57*(2), 139–157. https://doi.org/10.2486/indhealth.SW-1

Mural. (2022). *Mural*. https://www.mural.co/

Najmabadi, L., Agénor, M., & Tendulkar, S. (2024). “Pouring from an empty cup”: manifestations, drivers, and protective factors of occupational stress among healthcare providers of trauma-informed care. *Journal of Interpersonal Violence*, *39*(9–10), 2041–2075. https://doi.org/10.1177/08862605231215028

National Health and Medical Research Council. (2016). *Statement on consumer and community involvement in health and medical research*. National Health and Medical Research Council.

National Suicide Prevention Office. (2025). *National Suicide Prevention Strategy 2025-2035*. https://www.mentalhealthcommission.gov.au/nspo/projects/national-suicide-prevention-strategy

Netbalance. (2014). *Social return on investment forecast of the lifeline online crisis support chat service*. https://www.lifeline.org.au/media/esypbhml/social-return-investment-forecast-2014.pdf

Newcombe, D. A. L., Humeniuk, R. E., & Ali, R. (2005). Validation of the World Health Organization Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Report of results from the Australian site. *Drug and Alcohol Review*, *24*(3), 217–226. https://doi.org/10.1080/09595230500170266

Newell, J. M., Nelson-Gardell, D., & MacNeil, G. (2016). Clinician responses to client traumas: A chronological review of constructs and terminology. *Trauma, Violence, & Abuse*, *17*(3), 306–313. https://doi.org/10.1177/1524838015584365

O'Brien, H., Callinan, S., Livingston, M., Doyle, J. S., & Dietze, P. M. (2020). Population patterns in Alcohol Use Disorders Identification Test (AUDIT) scores in the Australian population; 2007-2016. *Australian and New Zealand journal of public health*, *44*(6), 462–467. https://doi.org/10.1111/1753-6405.13043

O'Sullivan, J., & Whelan, T. A. (2011). Adversarial growth in telephone counsellors: Psychological and environmental influences. *British Journal of Guidance and Counselling*, *39*(4), 307–323. https://doi.org/10.1080/03069885.2011.567326

Owens-King, A. P. (2019). Secondary traumatic stress and self-care inextricably linked. *Journal of Human Behavior in the Social Environment*, *29*(1), 37–47. https://doi.org/10.1080/10911359.2018.1472703

Pandya, S. P. (2020). Geriatric social workers in adult day care facilities: Meditation, worker resilience, and job satisfaction. *Health Soc. Work*, *45*(4), 259–267. https://doi.org/10.1093/hsw/hlaa027

Parmar, J., L'Heureux, T., Lewanczuk, R., Lee, J., Charles, L., Sproule, L., Henderson, I., Chaudhuri, E. R., Berry, J., Shapkin, K., Powell, L., Nicholas, D., Tarnowski, G., Leslie, M., Lobchuk, M., Kaattari, J., Porter, A., Ewa, V., Podlosky, L., … Anderson, S. (2025). Transforming care through co-design: Developing inclusive caregiver-centered education in healthcare. *Healthcare*, *13*(3), 254. https://doi.org/10.3390/healthcare13030254

Patel, H., Easterbrook, B., D'Alessandro-Lowe, A. M., Andrews, K., Ritchie, K., Hosseiny, F., Rodrigues, S., Malain, A., O'Connor, C., Schielke, H., McCabe, R. E., Nicholson, A. A., Lanius, R., & McKinnon, M. C. (2023). Associations between trauma and substance use among healthcare workers and public safety personnel during the SARS-CoV-2 (COVID-19) pandemic: The mediating roles of dissociation and emotion dysregulation. *European Journal of Psychotraumatology*, *14*(1), 2180706. https://doi.org/10.1080/20008066.2023.2180706

Pautrat, M., Pierre Lebeau, J., & Laporte, C. (2022). Identifying available addictive disorder screening tests validated in primary care: A systematic review. *Addictive Behaviors*, *126*, 107180. https://doi.org/10.1016/j.addbeh.2021.107180

Pellikka, A., Junttila, K., Laukkala, T., & Haapa, T. (2024). Nurses' perceptions of desired support from their employer during the COVID-19 pandemic: A qualitative survey study. *BMC Nursing*, *23*(1). https://doi.org/10.1186/s12912-024-01779-2

Peters, S., Guccione, L., Francis, J., Best, S., Tavender, E., Curran, J., Davies, K., Rowe, S., Palmer, V. J., & Klaic, M. (2024). Evaluation of research co-design in health: A systematic overview of reviews and development of a framework. *Implementation Science*, *19*(1). https://doi.org/10.1186/s13012-024-01394-4

Petrie, K., Gayed, A., Bryan, B. T., Deady, M., Madan, I., Savic, A., Wooldridge, Z., Counson, I., Calvo, R. A., Glozier, N., & Harvey, S. B. (2018). The importance of manager support for the

mental health and well-being of ambulance personnel. *PLOS ONE*, *13*(5), e0197802. https://doi.org/10.1371/journal.pone.0197802

Pirkis, J., Middleton, A., Bassilios, B., Harris, M., Spittal, M. J., Fedszyn, I., Chondros, P., & Gunn, J. (2016). Frequent callers to telephone helplines: New evidence and a new service model. *International Journal of Mental Health Systems*, *10*(1), 43. https://doi.org/10.1186/s13033-016-0076-4

Pisani, A. R., Gould, M. S., Gallo, C., Ertefaie, A., Kelberman, C., Harrington, D., Weller, D., & Green, S. (2022). Individuals who text crisis text line: Key characteristics and opportunities for suicide prevention. *Suicide and Life-Threatening Behavior*, *52*(3), 567–582. https://doi.org/10.1111/sltb.12872

Pitman, A., Osborn, D., King, M., & Erlangsen, A. (2014). Effects of suicide bereavement on mental health and suicide risk. *The Lancet Psychiatry*, *1*(1), 86–94. https://doi.org/10.1016/s2215-0366(14)70224-x

Pollock, K., Armstrong, S., Coveney, C., & Moore, J. (2010). *An evaluation of Samaritans telephone and email emotional support service*. University of Nottingham.

Pollock, K., Moore, J., Coveney, C., & Armstrong, S. (2012). Configuring the caller in ambiguous encounters: Volunteer handling of calls to Samaritans emotional support services. *Communication and Medicine*, *9*(2), 113–123. https://doi.org/10.1558/cam.v9i2.113

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, *38*(2), 65–76. https://doi.org/10.1007/s10488-010-0319-7

R Core Team. (2023). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/

R. Kessler, G. Andrew, L. Colpe, E. Hiripi, D. Mroczek, S. Normand, E. Walters, & A. Zaslavksy. (2002a). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, *32*, 959–976.

Rabin, S., Saffer, M., Weisberg, E., Kornitzer-Enav, T., Peled, I., & Ribak, J. (2000). A multifaceted mental health training program in reducing burnout among occupational social workers. *The Israel Journal of Psychiatry and Related Sciences*, *37*(1), 12–19.

Ramchand, R., Jaycox, L., Ebener, P., Gilbert, M. L., Barnes-Proby, D., & Goutam, P. (2017). Characteristics and proximal outcomes of calls made to suicide crisis hotlines in california: Cariability across centers. *Crisis*, *38*(1), 26–35. https://doi.org/10.1027/0227-5910/a000401

Rauvola, R. S., Vega, D. M., & Lavigne, K. N. (2019). Compassion fatigue, secondary traumatic stress, and vicarious traumatization: A qualitative review and research agenda. *Occupational Health Science*, *3*(3), 297–336. https://doi.org/10.1007/s41542-019-00045-1

Reim Ifrach, E., & Miller, A. (2016). Social action art therapy as an intervention for compassion fatigue. *The Arts in Psychotherapy, 50,* 34–39. https://doi.org/10.1016/j.aip.2016.05.009

Robertson, I. T., Cooper, C. L., Sarkar, M., & Curran, T. (2015). Resilience training in the workplace from 2003 to 2014: A systematic review. *Journal of Occupational and Organizational Psychology*, *88*(3), 533–562. https://doi.org/10.1111/joop.12120

Roche, A., & Ogden, J. (2017). Predictors of burnout and health status in Samaritans' listening volunteers. *Psychology, Health and Medicine*, *22*(10), 1169–1174. https://doi.org/10.1080/13548506.2017.1280176

Sampasa-Kanyinga, H., Zamorski, M. A., & Colman, I. (2018). The psychometric properties of the 10-item Kessler Psychological Distress scale (K10) in Canadian military personnel. *PLoS ONE*, *13*(4), 1–19. https://doi.org/10.1371/journal.pone.0196562

Sardi, L., Idri, A., & Fernández-Alemán, J. L. (2017). A systematic review of gamification in e-Health. *Journal of Biomedical Informatics*, *71*, 31–48. https://doi.org/10.1016/j.jbi.2017.05.011

Sawilowsky, S. S. (2009). New effect size rules of thumb. *Journal of Modern Applied Statistical Methods*, *8*(2), 597–599. https://doi.org/10.22237/jmasm/1257035100

Sercombe, J., Devine, E. K., Deady, M., & Mills, K. L. (2025). Holding the line – mental well-being, stressors, and coping in crisis supporters. *Crisis*, *46*(1), 32–41. https://doi.org/10.1027/0227-5910/a000985

Sercombe, J., Henry, A., Leung, C., Sunderland, M., Marel, C., Barrett, E., Morse, A. K., Askovic, M., Fisher, A., Chatterton, M.-L., Harvey, L., Peach, N., Teesson, M., & Mills, K. L. (2025). Trauma exposure, post-traumatic stress disorder and alcohol and other drug use among Australian public safety personnel. *Australian & New Zealand Journal of Psychiatry*, 413–422. https://doi.org/10.1177/00048674251324814

Shriane, A. E., Rigney, G., Ferguson, S. A., Bin, Y. S., & Vincent, G. E. (2023). Healthy sleep practices for shift workers: Consensus sleep hygiene guidelines using a Delphi methodology. *SLEEP*, *46*(12). https://doi.org/10.1093/sleep/zsad182

Sinclair, S., Raffin-Bouchal, S., Venturato, L., Mijovic-Kondejewski, J., & Smith-MacDonald, L. (2017). Compassion fatigue: A meta-narrative review of the healthcare literature. *International Journal of Nursing Studies*, *69*, 9–24. https://doi.org/10.1016/j.ijnurstu.2017.01.003

Sjoberg, D. D., Whiting, K., Curry, M., Lavery, J. A., & Larmarange, J. (2021). Reproducible summary tables with the gtsummary package. *The R Journal*, *13*(1), 570–580. https://doi.org/10.32614/RJ-2021-053

Slade, T., Grove, R., & Burgess, P. (2011). Kessler Psychological Distress Scale: Normative data from the 2007 Australian National Survey of Mental Health and Wellbeing. *Australian & New Zealand Journal of Psychiatry*, *45*(4), 308–316. https://doi.org/10.3109/00048674.2010.543653

Slade, T., Vescovi, J., Chapman, C., Teesson, M., Arya, V., Pirkis, J., Harris, M. G., Burgess, P. M., Santomauro, D., O'Dean, S., Tapp, C., & Sunderland, M. (2025). The epidemiology of mental and substance use disorders in Australia 2020–22: Prevalence, socio-demographic correlates, severity, impairment and changes over time. *Australian & New Zealand Journal of Psychiatry*, *59*(6), 510–521. https://doi.org/10.1177/00048674241275892

Slattery, P., Saeri, A. K., & Bragge, P. (2020). Research co-design in health: A rapid overview of reviews. *Health Research Policy and Systems*, *18*(1), 17. https://doi.org/10.1186/s12961-020-0528-9

Smith, J. A. (2011). Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review*, *5*(1), 9–27. https://doi.org/10.1080/17437199.2010.510659

Snijder, M., Stapinski, L., Ward, J., Lees, B., Chapman, C., Champion, K., Doyle, M., Watson, I., Sarra, R., Lear, A., Garlick Bock, S., Teesson, M., & Newton, N. (2021). Strong and Deadly Futures: Co-development of a web-based wellbeing and substance use prevention program for aboriginal and torres strait islander and non-aboriginal adolescents. *International Journal of Environmental Research and Public Health*, *18*(4), 2176. https://doi.org/10.3390/ijerph18042176

Snyder, D. J., Mournet, A. M., & Pao, M. (2023). Reflections on experiential training in meaning-centered psychotherapy: How MCP ended up facilitating professional wellbeing. *Palliative & Supportive Care*, *21*(1), 38–42. https://doi.org/10.1017/S1478951522000414

Spafford, S. G., Schuler Adair, E., Baker, S., & Dedrickson, D. (2023). Mental wellbeing and resilience in suicide prevention crisis line volunteers. *Community Mental Health Journal*. https://doi.org/10.1007/s10597-023-01143-9

Spittal, M. J., Fedyszyn, I., Middleton, A., Bassilios, B., Gunn, J., Woodward, A., & Pirkis, J. (2015). Frequent callers to crisis helplines: Who are they and why do they call? *Australian and*

New Zealand Journal of Psychiatry, *49*(1), 54–64. https://doi.org/10.1177/0004867414541154

Sprang, G., Ford, J., Kerig, P., & Bride, B. (2019). Defining secondary traumatic stress and developing targeted assessments and interventions: Lessons learned from research and leading experts. *Traumatology*, *25*(2), 72–81. https://doi.org/10.1037/trm0000180

Stallman, H. M. (2020). Health theory of coping. *Australian Psychologist*, *55*(4), 295–306. https://doi.org/10.1111/ap.12465

Stamm, B. H. (2010). The concise ProQOL manual. *Pocatello, ID: ProQOL. Org*, 78.

Stamm, B. H. (2012). Helping the helpers: Compassion satisfaction and compassion fatigue in self-care, management, and policy of suicide prevention hotlines. In A. D. Kirkwood & B. H. Stamm (Eds.), *Resources for Community Suicide Prevention*. Meridian & Pocatello, ID: Idaho State University.

Subotic-Kerry, M., Borchard, T., Parker, B., Li, S. H., Choi, J., Long, E. V., Batterham, P. J., Whitton, A., Gockiert, A., Spencer, L., & O'Dea, B. (2025). While they wait: A cross-sectional survey on wait times for mental health treatment for anxiety and depression for adolescents in Australia. *BMJ Open*, *15*(3), e087342. https://doi.org/10.1136/bmjopen-2024-087342

Substance Abuse and Mental Health Services Administration. (2025, February 16). *988 Lifeline Performance Metrics*. https://www.samhsa.gov/mental-health/988/performance-metrics

Sunderland, M., Slade, T., Stewart, G., & Andrews, G. (2011). Estimating the prevalence of DSM-IV mental illness in the Australian general population using the Kessler Psychological Distress Scale. *Australian and New Zealand Journal of Psychiatry*, *45*(10), 880–889. https://doi.org/10.3109/00048674.2011.606785

Sundram, F., Corattur, T., Dong, C., & Zhong, K. (2018). Motivations, expectations and experiences in being a mental health helplines volunteer. *International Journal of Environmental Research and Public Health*, *15*(10), 2123. https://doi.org/10.3390/ijerph15102123

Taylor, W., & Furlonger, B. (2011). A review of vicarious traumatisation and supervision among Australian telephone and online counsellors. *Australian Journal of Guidance and Counselling*, *21*(2), 225–235. https://doi.org/10.1375/ajgc.21.2.225

Teesson, M., Whiteford, H., Bower, M., Smout, S., Burgess, P., Harris, M. G., Pirkis, J., Diminic, S., Baillie, A., Slade, T., & Chapman, C. (2025). Policy implications of the 2020–22 Australian study of mental health and wellbeing. *Australian & New Zealand Journal of Psychiatry*, *59*(6), 485–492. https://doi.org/10.1177/00048674241292961

Thørrisen, M. M., Bonsaksen, T., Hashemi, N., Kjeken, I., Van Mechelen, W., & Aas, R. W. (2019). Association between alcohol consumption and impaired work performance (presenteeism): A systematic review. *BMJ Open*, *9*(7), 1–15. https://doi.org/10.1136/bmjopen-2019-029184

Towey-Swift, K. D., Lauvrud, C., & Whittington, R. (2023). Acceptance and commitment therapy (ACT) for professional staff burnout: A systematic review and narrative synthesis of controlled trials. *Journal of Mental Health*, *32*(2), 452–464. https://doi.org/10.1080/09638237.2021.2022628

Trajkovski, S., Schmied, V., Vickers, M., & Jackson, D. (2013). Implementing the 4D cycle of appreciative inquiry in health care: A methodological review. *Journal of Advanced Nursing*, *69*(6), 1224–1234. https://doi.org/10.1111/jan.12086

Trammel, R. C., Park, G., & Karlsson, I. (2021). Religiously oriented mindfulness for social workers: Effects on mindfulness, heart rate variability, and personal burnout. *Journal of Religion & Spirituality in Social Work: Social Thought*, *40*(1), 19–38. https://doi.org/10.1080/15426432.2020.1818358

Tripathi, A., Brahma, A., Malhotra, S., & Akula, V. (2023). Clinical practice guidelines for assessment and management of patients presenting with psychosocial crisis. *Indian Journal of Psychiatry*, *65*(2), 212–220. https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_485_22

Trowbridge, K., Mische Lawson, L., Andrews, S., Pecora, J., & Boyd, S. (2017). Preliminary investigation of workplace-provided compressed mindfulness-based stress reduction with pediatric medical social workers. *Health & Social Work*, *42*(4), 207–214. https://doi.org/10.1093/hsw/hlx038

Trudel-Fitzgerald, C., Boucher, G., Morin, C., Mondragon, P., Guimond, A.-J., Nishimi, K., Choi, K. W., & Denckla, C. (2024). Coping and emotion regulation: A conceptual and measurement scoping review. *Canadian Psychology / Psychologie Canadienne*, *65*(3), 149–162. https://doi.org/10.1037/cap0000377

Turecki, G., Brent, D. A., Gunnell, D., O'Connor, R. C., Oquendo, M. A., Pirkis, J., & Stanley, B. H. (2019). Suicide and suicide risk. *Nature Reviews Disease Primers*, *5*(1), 74. https://doi.org/10.1038/s41572-019-0121-0

Üstün, B., & Kennedy, C. (2009). What is "functional impairment"? Disentangling disability from clinical significance. *World Psychiatry*, *8*(2), 82–85. https://doi.org/10.1002/j.2051-5545.2009.tb00219.x

Varah, C. (1973). *The Samaritans in the '70s; to befriend the suicidal and despairing* (2nd revised ed.). Constable.

Vattøe, I. E., Lien, L., DeMarinis, V., Kjørven Haug, S. H., & Danbolt, L. J. (2019). Caught between expectations and the practice field: Experiences of this dilemma among volunteers operating a diaconal crisis line in Norway. *Crisis*, *40*(5), 340–346. https://doi.org/10.1027/0227-5910/a000573

Vattøe, I. E., DeMarinis, V., Haug, S. H. K., Lien, L., & Danbolt, L. J. (2020). Emotional stressors among volunteers operating a diaconal suicide-prevention crisis line in Norway: A qualitative study. *British Journal of Guidance and Counselling*, *48*(4), 563–575. https://doi.org/10.1080/03069885.2019.1646409

Viechtbauer, W. (2010). Conducting Meta-Analyses in *R* with the metafor Package. *Journal of Statistical Software*, *36*(3). https://doi.org/10.18637/jss.v036.i03

Warren, L., Feit, M. D., & Wells, J. (2011). Substance abuse among professionals: Limited research on substance-abusing social workers. *Journal of Human Behavior in the Social Environment*, *21*(7), 803–812. https://doi.org/10.1080/10911359.2011.616753

Watson, D., Forbes, M. K., Levin-Aspenson, H. F., Ruggero, C. J., Kotelnikova, Y., Khoo, S., Bagby, R. M., Sunderland, M., Patalay, P., & Kotov, R. (2022). The development of preliminary HiTOP Internalizing Spectrum Scales. *Assessment*, *29*(1), 17–33. https://doi.org/10.1177/10731911211003976

Watson, R. J., & Spiteri, J. A. (2020). Lifeline caller response times and suicide prevention. *Australian and New Zealand Journal of Psychiatry*, *54*(1), 10–11. https://doi.org/10.1177/0004867419850312

Weaver, N. D., Bertolacci, G. J., Rosenblad, E., Ghoba, S., Cunningham, M., Ikuta, K. S., Moberg, M. E., Mougin, V., Han, C., Wool, E. E., Abate, Y. H., Adewuyi, H. O., Adnani, Q. E. S., Adzigbli, L. A., Afolabi, A. A., Agampodi, S. B., Ahinkorah, B. O., Ahmad, A., Ahmad, D., … Naghavi, M. (2025). Global, regional, and national burden of suicide, 1990–2021: A systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Public Health*, *10*(3), e189–e202. https://doi.org/10.1016/s2468-2667(25)00006-4

Weiner, B. J., Lewis, C. C., Stanick, C., Powell, B. J., Dorsey, C. N., Clary, A. S., Boynton, M. H., & Halko, H. (2017). Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science*, *12*(1), 108. https://doi.org/10.1186/s13012-017-0635-3

Weiss, D. S. (2004). The Impact of Event Scale – Revised. In J. P. Wilson & T. M. Keane (Eds), *Assessing Psychological Trauma and PTSD* (2nd edn, pp. 168–189). Guilford Press.

Wesolowicz, D. M., Becker, W. C., Alegria, M., Chin-Purcell, L., Glass, J. E., Knudsen, H. K., Dow, P. M., Seal, K. H., & McGinty, E. B. (2025). Integrating implementation outcomes into effectiveness studies: A practical guide for clinical interventionists. *Journal of General Internal Medicine*, *40*(10), 2376–2382. https://doi.org/10.1007/s11606-025-09551-1

Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L., François, R., Grolemund, G., Hayes, A., Henry, L., Hester, J., Kuhn, M., Pedersen, T., Miller, E., Bache, S., Müller, K., Ooms, J., Robinson, D., Seidel, D., Spinu, V., … Yutani, H. (2019). Welcome to the Tidyverse. *Journal of Open Source Software*, *4*(43), 1686. https://doi.org/10.21105/joss.01686

Willems, R. C. W. J., Drossaert, C. H. C., Miedema, H. S., & Bohlmeijer, E. T. (2021). How demanding is volunteer work at a crisis line? An assessment of work- and organization-related demands and the relation with distress and intention to leave. *Frontiers in Public Health*, *9*(July), 1–11. https://doi.org/10.3389/fpubh.2021.699116

Willems, R., Drossaert, C., Ten Klooster, P., Miedema, H., & Bohlmeijer, E. (2021). The role of self-compassion in the job demands-resources model, an explorative study among crisis line volunteers. *International Journal of Environmental Research and Public Health*, *18*(18), 9651. https://doi.org/10.3390/ijerph18189651

Willems, R., Drossaert, C., & Vuijk, P. (2020). Impact of crisis line volunteering on mental wellbeing and the associated factors: A systematic review. *International Journal of Environmental Research and Public Health*, *17*(5), 1–22. https://doi.org/10.3390/ijerph17051641

Williams, K., Fildes, D., Kobel, C., Grootemaat, P., Bradford, S., & Gordon, R. (2021). Evaluation of outcomes for help seekers accessing a pilot SMS-based crisis intervention service in Australia. *Crisis*, *42*(1), 32–39. https://doi.org/10.1027/0227-5910/a000681

Willig, C. (2017). Interpretation in qualitative research. In C. Willig & W. Stainton-Rogers (Eds), *The SAGE Handbook of Qualitative Research in Psychology* (pp. 274–288). SAGE.

Willig, C., & Rogers, W. S. (2017). *The SAGE handbook of qualitative research in psychology*. SAGE Publications Ltd. https://doi.org/10.4135/9781526405555

World Health Organization. (2013). *Preventing suicide: A resource for establishing a Crisis Line*. 1–29. https://www.who.int/publications/i/item/WHO_MSD_MER_18.4

World Health Organization. (2021). *Comprehensive mental health action plan 2013-2030* (1st ed). World Health Organization. https://www.who.int/publications/i/item/9789240031029

World Health Organization. (2022). *WHO Guidelines on mental health at work* (1st ed). World Health Organization. https://www.who.int/publications/i/item/9789240053052

World Health Organization. (2024). *Global Health Estimates 2021: Deaths by cause, age, sex, by country and by region, 2000–2021*. World Health Organization.

World Health Organization. (2025). *Suicide worldwide in 2021: Global health estimates.* World Health Organization. https://www.who.int/publications/i/item/9789240110069

Yanay, G. V., & Yanay, N. (2008). The decline of motivation?: From commitment to dropping out of volunteering. *Nonprofit Management and Leadership*, *19*(1), 65–78. https://doi.org/10.1002/nml.205

Zeladita-Huaman, J. A., Flores-Rodríguez, C. C., Zegarra-Chapoñan, R., Carpio-Borja, S. J., Franco-Chalco, E., Vivas-Durand, T. D. J., Castillo-Parra, H., Alvarado-Rivadeneyra, S. H., & Mariñas-Acevedo, O. (2024). Psychometric evaluation of the Brief-COPE inventory and exploration of factors associated with perceived stress among Peruvian nurses. *Healthcare*, *12*(17), 1729. https://doi.org/10.3390/healthcare12171729

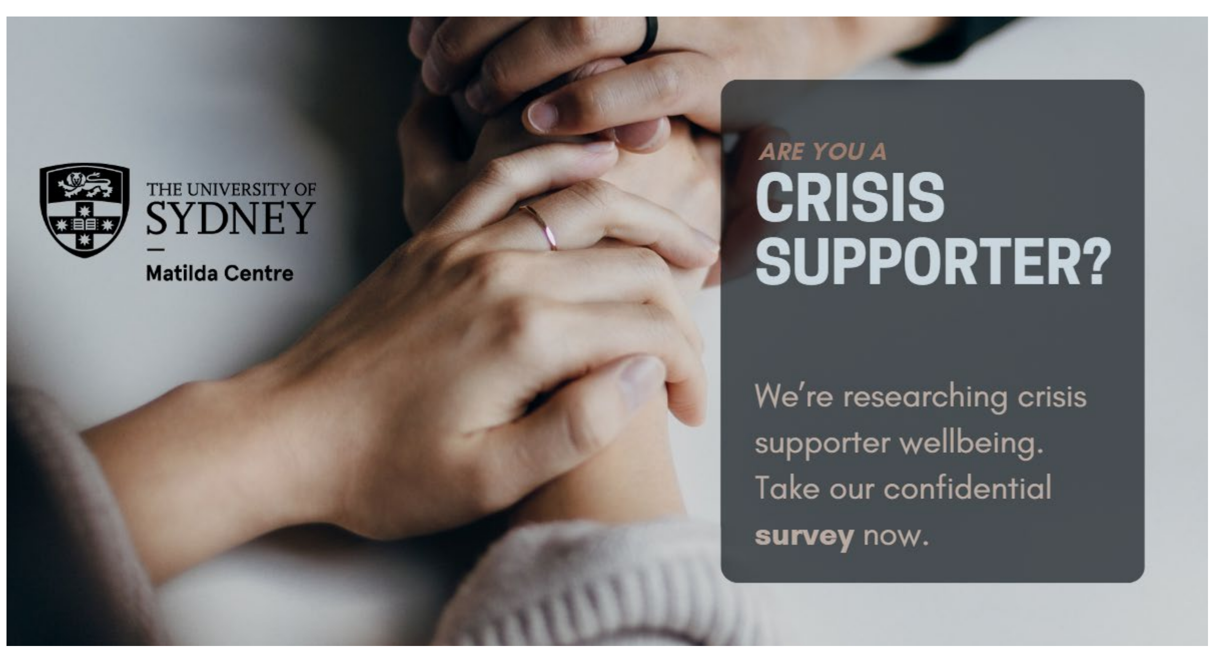
Zhang, L., Zhang, T., Ren, Z., & Jiang, G. (2021). Predicting compassion fatigue among psychological hotline counselors using machine learning techniques. *Current Psychology*. https://doi.org/10.1007/s12144-021-01776-7

Zhang, R., McAlphin, M., Weaver Salazar, K., & Craig, S. D. (2024). The impact of information quantity on cognitive load and user perceptions in medical website design. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, *68*(1), 1169–1173. https://doi.org/10.1177/10711813241275918

Zhang, Y., Zhang, C., Han, X.-R., Li, W., & Wang, Y. (2018). Determinants of compassion satisfaction, compassion fatigue and burn out in nursing: A correlative meta-analysis. *Medicine*, *97*(26), e11086. https://doi.org/10.1097/md.0000000000011086

Appendix A

Advertising materials for the online survey



Appendix B

Online survey

You are invited to participate in a study of crisis supporter/telephone counsellor wellbeing. By the term crisis supporter/telephone counsellor, we mean a person who provides crisis intervention and emotional support (e.g., Lifeline, MensLine). These services are *typically* free and offer one-off or short-term support. This definition does not include those providing telehealth consultations (e.g., psychologists, GPs). We are seeking to know more about the experience of crisis supporters and telephone counsellors to support people who volunteer or work in this role. Results from this survey will inform the development of a wellbeing program built specifically to support those in these roles.

The survey takes about 15-20 minutes to complete. You may not be able to return to your place in the survey if you are called away before submitting your response, so you may want to start the survey when you're sure you have enough time to complete it.

Any information you give as a participant in this research will be kept completely **confidential and anonymous.**

Click 'next' below to read the Participant Information Statement and proceed to the survey

[Next]

Participant Information Statement and Consent Form (Brief)

(1) What is this study about?

Researchers at The Matilda Centre for Research in Mental Health and Substance Use, University of Sydney, are conducting an online survey to better understand the mental wellbeing of crisis supporters (also referred to as telephone counsellors in some organisations) and how they cope with stress.

You have been invited to participate because you are an active crisis supporter/telephone counsellor, or you have been in the past 3 months. Participation in this research study is completely voluntary and all survey responses will be kept strictly confidential.

(2) What will this study involve for me?

If you choose to participate in this research study, you will first answer some screening questions online to determine if you are eligible to participate in our research. If you are eligible to participate, you will be directed to the survey. If you are not eligible, you will be directed out of the survey. The survey includes

questions about your role, stressors associated with your role, your overall sense of wellbeing, the way you cope with stress, and your use of alcohol or other drugs.

(3) How much of my time will the study take?

Completing this survey will take 15-20 minutes.

(4) Are there any risks associated with being in the study?

Some of the survey questions are about alcohol or other drug use and other aspects of mental health. As such, some of the questions may cause you to feel discomfort or distress. If this happens, please call or message on of the 24/7 support service/s listed below:

Lifeline on 13 11 14 (chat: https://www.lifeline.org.au),
Beyond Blue on 1300 224 636 (chat: https://beyondblue.org.au),
the Suicide Call Back Service on 1300 659 467 (chat: https://www.suicidecallbackservice.org.au), or
the National Alcohol and Other Drug Hotline on 1800 250 015.

As you may work or volunteer at one of these services, you may be more comfortable choosing one you're not affiliated with. You may also email the researchers at jayden.sercombe@sydney.edu.au.

(5) Do I have to be in the study?

Participation in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your relationship with the organisation you volunteer or work at as a crisis supporter/telephone counsellor, or with the researchers or anyone else at The University of Sydney (or any other affiliated institution).

You will be able to review and change your responses before you submit the questionnaire, however, once it is submitted you may no longer change your responses. This is because the response is anonymous and cannot be identified once submitted. If you complete and submit your survey response, we will consider that implied consent to participate in this study.

(6) What if I would like further information about the study?

When you have read this information, please open the Full Participant Information below to read more about the study. If would like to know more, feel free to contact Jayden Sercombe (email: jayden.sercombe@sydney.edu.au).

[Embed the Full Participant Information Statement and Consent Form] for participants to read.

Click here to read and download a copy of the Participant Information Statement

By choosing to continue with the survey you are consenting to participate in the study.

Screening and demographic questions

Q1. Crisis supporters/telephone counsellors are volunteers or paid employees who provide crisis intervention and emotional support. Crisis support/telephone counselling services are typically free and offer one-off or short-term support.

Are you an active, or recently active (in the past 3 months) crisis supporter/telephone counsellor?

- Yes, I'm an active or recently active crisis supporter/telephone counsellor
- No, I used to be a crisis supporter/telephone counsellor
- No, I have never been a crisis supporter/telephone counsellor

If respondent selects the 2nd or 3rd responses, show end of survey message (see Supplementary Material A)

Q1b. Is your current or recent (in the past 3 months) crisis supporter/telephone counsellor role based in Australia?

- Yes, my role is based in Australia
- No, my role is based in another country

If respondent selects the 2nd response, show end of survey message (see Supplementary Material A)

Q2. This survey is for volunteers or paid crisis supporters/telephone counsellors who provide support over technology-based services (i.e., over the phone or over text / online chat).

How do you provide crisis support/telephone counselling in your role? Please select all that apply

- ❑ Over telephone
- ❑ Over online chat
- ❑ Over text (SMS)
- ❑ In person

If respondent only selects "in person", show end of survey message (see Supplementary Material A)

Q2a. [show if selected more than one of "over telephone", "over online chat" or "over text (SMS)"]

You selected you provide support or counselling over multiple mediums: which way do you most frequently provide crisis support?

- ❑ Over telephone
- ❑ Over online chat
- ❑ Over text (SMS)
- ❑ In person

If respondent only selects “in person”, show end of survey message (see Supplementary Material A)

Q3. What is your age?

[number field]

If respondent is under the age of 18, show end of survey message (see Supplementary Material A)

Q4. How do you describe your gender?

- Male
- Female
- In any other way [please specify]
- Prefer not to say

Q5. Is the gender you identify with the same as your sex assigned at birth?

- Yes
- No
- Prefer not to say

Q6. How do you describe your sexual orientation?

- Straight or heterosexual
- Lesbian, gay or homosexual
- Bisexual
- I use a different term – please specify: [open textbox]
- Prefer not to say

Role description

The following questions relate to **your role** as a crisis supporter/telephone counsellor at your **current (or most recent) organisation.** Just a reminder that this survey is **anonymous and completely confidential**, so no identifying information about you will ever be released.

Q7. Which organisation do you volunteer or work at?

- Lifeline
- On the Line (e.g., MensLine, Suicide Call Back Service, SuicideLine)
- Kids Helpline
- Headspace
- Government crisis/helpline
- Prefer not to say
- Other organisation [open text]

Q7a. [if selected On the Line for Q7. display this question] Please indicate which On the Line service you primarily volunteer or work at.

- MensLine Australia
- Suicide Call Back Service
- SuicideLine Victoria
- Other service: [open text]

Q7b. [if selected Government crisis/helpline for Q7. display this question] Please specify which government crisis/helpline you primarily volunteer or work at.

- Other service: [open text]

Q8. Are you a paid or volunteer crisis supporter/telephone counsellor?

- Volunteer
- Paid
- Primarily volunteer, but I occasionally complete a paid shift
- Primarily paid, but I occasionally complete a volunteer shift

Q9. How many hours of crisis support/telephone counselling shifts (paid or volunteer) do you complete each month on average?

- 0-5 hours
- 5-10 hours
- 10-15 hours
- 15-20 hours
- 20-30 hours
- 30-40 hours
- 40-50 hours
- 50-60 hours
- 60 hours or more

Q10. How long have you worked/volunteered as a crisis supporter/telephone counsellor? If you have ever taken a break from this role, please add up the years that you have been an active crisis supporter/telephone counsellor.

- Less than 6 months
- 6-12 months
- 1-2 years
- 3-5 years
- 6-10 years
- More than 10 years

Q11. What proportion of your crisis supporter/telephone counsellor work in the past year was undertaken remotely (i.e., working from home)?

[Slider from 0% to 100%]

Q12. Other than the training you received from the organisation you work or volunteer for as a crisis supporter/telephone counsellor, have you completed educational, vocational, or professional training in counselling or mental health? Please select all that apply.

- ❑ I have completed a diploma in counselling or mental health
- ❑ I have completed an undergraduate university degree in counselling or mental health
- ❑ I have completed a postgraduate university degree in counselling or mental health
- ❑ I am currently studying a qualification in counselling or mental health
- ❑ I have completed training relating to my crisis supporter/telephone counsellor role through my current organisation
- ❑ Other relevant qualification (please specify)

Q13. In what area do you conduct your crisis support/telephone counselling role? If you work from home, please indicate the area in which you live.

- Major urban area (population between 100,000 - 1 million or more)
- Other urban or country area (population between 1000 - 99,999)
- Small country or rural area (population between 200 - 999)
- Rural/remote area (population less than 200)

Workplace and work factors

Q14. What challenges do you face relating to your role as a crisis supporter/telephone counsellor that negatively impact your mental health and wellbeing? (tick all that apply)

- ❑ High job demands (e.g., workload or time pressure)
- ❑ Lack of control over how I do my job
- ❑ Unclear job role or responsibilities, or conflict between different roles/responsibilities
- ❑ Poor support from colleagues
- ❑ Poor support from supervisors
- ❑ Job insecurity (uncertainly about future work)
- ❑ Conflict with others at work
- ❑ Workplace bullying/ harassment
- ❑ Long work hours
- ❑ Shift work
- ❑ Lack of reward/recognition for work
- ❑ Lack of flexibility in work hours
- ❑ Long commute to work
- ❑ Difficulty with working remotely (e.g., working from home)
- ❑ Hazardous physical work environment
- ❑ Trauma exposure (e.g., suicide-related calls, abuse calls)
- ❑ Other (please specify: ______)
- ❑ I don’t face any challenges at work that negatively impact my mental health and wellbeing

Q15. Below is a list of potential stressors to do with the crisis supporter/telephone counsellor role. Please indicate if any of these scenarios negatively impact your mental health and wellbeing? (tick all that apply)

- ❑ Client has a psychiatric condition
- ❑ Client presents as suicidal
- ❑ Client is argumentative
- ❑ Client talking so much that you’re unable to contribute to the conversation
- ❑ Client shares a lot of complaints with you
- ❑ Client expects too much from you that you cannot provide as part of your role
- ❑ Client is exhibiting extreme/catastrophic thinking
- ❑ Client has sexual intentions with the conversation
- ❑ Client tells story in which children or animals are victims
- ❑ Client contacts the line frequently and does not appear to be in distress
- ❑ Client under the influence of alcohol or drugs
- ❑ Client busy with other things during conversation
- ❑ Client shares a story where it is difficult to determine how much is truth
- ❑ Client says they intends to mistreat someone (human or animal)
- ❑ Client’s story includes content that causes you a personal emotional reaction
- ❑ Client interaction ends in uncertainty; you’re not sure what happened with the client after the interaction
- ❑ Other: (please specify: ______)

Mental wellbeing

The following questions ask about your **quality of life at work**, including aspects of your **work as a crisis supporter/telephone counsellor** that you find **rewarding** as well as aspects that may be **challenging.**

These questions are important as they tell us what crisis supporter/telephone counsellors find **motivating** about their role, and where they could **use more support.**

ProQOL-21

Q16. When you support people, you have direct contact with their lives. As you may have found, your compassion for those you support can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a crisis supporter/telephone counsellor.

Consider each of the following questions about you and your current crisis supporter/telephone counsellor role. Select the number that honestly reflects how frequently you have experienced these things in the *last 30 days.*

	Never	Rarely	Sometimes	Often	Very often
I get satisfaction from being able to support people.	○	○	○	○	○
I feel invigorated after working with those I support.	○	○	○	○	○
I am not as productive in my role because I am losing sleep over traumatic experiences of a person I support.	○	○	○	○	○
I think that I might have been affected by the traumatic stress of those I support.	○	○	○	○	○
I feel trapped by my role as a crisis supporter/telephone counsellor.	○	○	○	○	○
Because of my role, I have felt "on edge" about various things.	○	○	○	○	○
I like my role as a crisis supporter/telephone counsellor.	○	○	○	○	○
I feel depressed because of the traumatic experiences of the people I support.	○	○	○	○	○
I feel as though I am experiencing the trauma of someone I have supported.	○	○	○	○	○
I am pleased with how I am able to keep up with crisis supporter/telephone counsellor techniques and protocols.	○	○	○	○	○
My role makes me feel satisfied.	○	○	○	○	○
I feel worn out because of my role as a crisis supporter/telephone counsellor.	○	○	○	○	○
I have happy thoughts and feelings about those I support and how I could help them.	○	○	○	○	○
I feel overwhelmed because my case load seems endless.	○	○	○	○	○
I believe I can make a difference through my role.	○	○	○	○	○
I avoid certain activities or situations because they remind me of frightening experiences of the people I support.	○	○	○	○	○
I am proud of what I can do to support.	○	○	○	○	○
As a result of my role, I have intrusive, frightening thoughts.	○	○	○	○	○

I feel "bogged down" by the system.	○	○	○	○	○
I have thoughts that I am a "success" as a crisis supporter/telephone counsellor.	○	○	○	○	○
I am happy that I chose to do this role.	○	○	○	○	○

Brief-COPE

Q17. The following questions ask how you have sought to cope with stressful experiences to do with your **crisis supporter/telephone counsellor role** in the **past 12 months**. Read the statements and indicate how much you have been using each coping style.

	I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
I've been turning to work or other activities to take my mind off things.	○	○	○	○
I've been concentrating my efforts on doing something about the situation I'm in.	○	○	○	○
I've been saying to myself "this isn't real".	○	○	○	○
I've been using alcohol or other drugs to make myself feel better.	○	○	○	○
I've been getting emotional support from others.	○	○	○	○
I've been giving up trying to deal with it.	○	○	○	○
I've been taking action to try to make the situation better.	○	○	○	○
I've been refusing to believe that it has happened.	○	○	○	○
I've been saying things to let my unpleasant feelings escape.	○	○	○	○
I've been getting help and advice from other people.	○	○	○	○
I've been using alcohol or other drugs to help me get through it.	○	○	○	○
I've been trying to see it in a different light, to make it seem more positive.	○	○	○	○
I've been criticizing myself.	○	○	○	○
I've been trying to come up with a strategy about what to do.	○	○	○	○
I've been getting comfort and understanding from someone.	○	○	○	○
I've been giving up the attempt to cope.	○	○	○	○

I've been looking for something good in what is happening.	○	○	○	○
I've been making jokes about it.	○	○	○	○
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	○	○	○	○
I've been accepting the reality of the fact that it has happened.	○	○	○	○
I've been expressing my negative feelings.	○	○	○	○
I've been trying to find comfort in my religion or spiritual beliefs.	○	○	○	○
I've been trying to get advice or help from other people about what to do.	○	○	○	○
I've been learning to live with it.	○	○	○	○
I've been thinking hard about what steps to take.	○	○	○	○
I've been blaming myself for things that happened.	○	○	○	○
I've been praying or meditating.	○	○	○	○
I've been making fun of the situation.	○	○	○	○

The following questions ask about your lived experience. If you are not comfortable answering these questions you may skip them.

Q18a. Do you have lived experience of suicide?

- ❑ Personal lived experience of suicidal ideation (thoughts or planning)
- ❑ Personal lived experience of attempted suicide
- ❑ Lived experience through having a close friend or loved one who has attempted suicide or took their own life
- ❑ Prefer not to say

Q18b. Do you have lived experience of mental illness?

- ❑ Personal lived experience of mental illness
- ❑ Lived experience through caring for a friend or loved one with mental illness
- ❑ Prefer not to say

Q18c. Do you have lived experience of relationship abuse?

- ❑ Personal lived experience of relationship abuse
- ❑ Lived experience through having a close friend or loved one who has experienced relationship abuse
- ❑ Prefer not to say

Kessler-10

The following questions relate to your mental health and wellbeing. We will ask you how you have been feeling lately.

Q19. In the past 4 weeks, about how often did you…

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
...feel tired out for no good reason?	○	○	○	○	○
...feel nervous?	○	○	○	○	○
...feel so nervous that nothing could calm you down?	○	○	○	○	○
...feel hopeless?	○	○	○	○	○
...feel restless or fidgety?	○	○	○	○	○
...feel so restless you could not sit still?	○	○	○	○	○
...feel depressed?	○	○	○	○	○
...feel that everything was an effort?	○	○	○	○	○
...feel so sad that nothing could cheer you up?	○	○	○	○	○
...feel worthless?	○	○	○	○	○

Alcohol and other drug use

We're interested in the wellbeing of crisis supporters/telephone counsellors, including the way they use alcohol and other drugs. This next section will ask about your alcohol and other drug use. Just a reminder that this survey is **anonymous and confidential**, so no identifying information about you will be released. However, in certain limited cases, such as the disclosure of a serious indictable offence, researchers may have a legal obligation to report to legal authorities or under court processes.

ASSIST (Alcohol, Smoking, and Substance Involvement Screening Test)

Q20. In your life, which of the following substances have you ever used? (NON-MEDICAL USE ONLY)

- ❑ a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)
- ❑ b. Alcoholic beverages (beer, wine, spirits, etc.)
- ❑ c. Cannabis (marijuana, pot, grass, hash, etc.)
- ❑ d. Cocaine (coke, crack, etc.)
- ❑ e. Amphetamine type stimulants (MDMA, speed, diet pills, ecstasy, etc.)

- ❑ f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)
- ❑ g. Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol, etc.)
- ❑ h. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, etc.)
- ❑ i. Opioids (heroin, morphine, methadone, codeine, etc.)
- ❑ j. Other - specify: [open text]

[If "No" to all items, skip to next block. If "Yes" to any of these items, ask Question 22a. for each substance ever used.]

Q21. [If "Never" to all items in Question 21a, skip to Question 21e. If any substances in Question 21a. were used in the previous three months, continue with Questions 21b., 21c. & 21d for each substance used]

	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
a. In the past 3 months, how often have you used (the substances answered YES in Q1)?	○	○	○	○	○
b. During the past 3 months, how often have you had a strong desire or urge to use ______?	○	○	○	○	○
c. During the past 3 months how often has your use of ____ led to health, social, legal or financial problems?	○	○	○	○	○
d. During the past 3 months how often have you failed to do what was normally expected of you because of your use of ______?	○	○	○	○	○
e. Has a friend or relative or anyone else ever expressed concern about your use of _________?	○	○	○	○	○
f. Have you ever tried and failed to control, cut down or stop using _______?	○	○	○	○	○

Q22. Is there anything else you would like to say about your role as a crisis supporter/telephone counsellor?

[Open text]

By submitting this survey, your confidential responses cannot be withdrawn.

We thank you for your time spent taking this survey.

Your response has been recorded.

We're also conducting short interviews with crisis supporters and telephone counsellors to learn more about their experience in their role. If you would like to receive a copy of the study findings and/or you are interested in participating in a one-on-one interview, please click the below link <link to a separate survey to preserve anonymity> to indicate if you're interested or email the researchers at jayden.sercombe@sydney.edu.au

Please note down these contact details in case you require support. These lines are available for you 24/7 to call or text if you're feeling distressed or need support:
Lifeline*: 13 11 14 (crisis hotline) | https://www.lifeline.org.au (crisis support online chat)*
Beyond Blue*: 1300 22 4636 (phone counselling) | https://beyondblue.org.au (online chat)*
Suicide Call Back Service*: 1300 659 467 |https://www.suicidecallbackservice.org.au (online chat)*
National Alcohol and Other Drug Hotline*: 1800 250 015*
You may also email the researchers at this contact: jayden.sercombe@sydney.edu.au

Contact details form (separate survey to maintain de-identification of data): [Only displayed to participants who click above link from end of survey message above]

What would you like to provide your contact information for? Please select all that apply:

- ❑ To be contacted about participating in a one-on-one interview
- ❑ To receive a copy of the study findings

Please enter your email address below. Remember that this will **not** be linked to your survey response.
[open text box]

Appendix C

Interview schedule

Prior to commencing the verbal consent process, assign the participant a random code from random.org/strings/.

Introductory statement and Verbal Consent Process

Thank you for expressing your interest in participating in an interview, we really appreciate having your perspective. My name is [NAME] and I am a researcher at The Matilda Centre for Research in Mental Health and Substance Use, which is part of the University of Sydney.

In this project, we are investigating the mental wellbeing and coping mechanisms of crisis supporters / telephone counsellors. This project will inform the development of a mental wellbeing program tailored for people in your role.

In this interview, I will ask you about:

- *Your role*
- *Rewarding aspects of your role*
- *Stressors associated with your role*
- *Your use of coping mechanisms*
- *Your mental wellbeing*

The interview will take about 30-40 minutes. Does that sound ok to you?

If I ask you a question that makes you uncomfortable, you don't have to answer, and we can either move on to another question or stop the interview. If you feel you need any support or assistance, we can chat about support services you can contact, they're listed on the Participant Information Statement.

We will also audio record your answers so we can make notes from your answers. Your answers will be kept confidential, unless I'm concerned for your immediate safety or the safety of someone else, and except as required by law. You will not be identifiable in any of our reports on our findings. We will report our findings from interviews in by looking at general themes, but we may use anonymous quotes from individuals in our reporting.

Prior to the interview I sent you a copy of the Participant Information Statement which provides information about the study, and what your participation requires. The statement also contains details of the person for you to contact if you have any complaints about the research study.

Have you had an opportunity to read through that?

[If no, I will give you an opportunity to do that now. There is no rush, please take your time.]

Do you have any questions in regard to the information statement, or any other questions about the study or your participation?

[If yes, answer any questions the participant may have; if no, continue to collect consent.]

Now that I have explained what your involvement in the study requires, are you happy to provide your consent to participate in the study?

[If no, thank the participant for their time and end the consent process; If yes, ensure you record the time and date the verbal consent was collected from the participant.]

Can you please confirm that:

1. You have read the Participant Information Sheet ☐
2. You understand the purpose, procedures and risks of the research described ☐
3. You have had an opportunity to ask questions and you are satisfied with the answers you have received. ☐
4. You freely agree to participate in this interview ☐
5. You understand that you can stop and withdraw from the interview at any time ☐
6. You agree for the interview to be audio-recorded: ☒

[If participant replies 'yes']: Thank you! We can now start with the interview.

Name of researcher

Signed (researcher): ______________________________

Date consent obtained : __________ Time:____________

Background

I'll start by asking you about your role.

Prompt to ask about:

- Organisation
- Whether volunteer or paid
- Method of providing support (e.g., phone, text)
- Remote work/operate from an office
- Length of time in role, hours per month
- Qualifications
- Training required for role.

Stressors and rewarding aspects of the role

Next, I'd like to talk about your experiences in your role. If any of these questions make you uncomfortable, let me know and we can move on to another question or stop the interview.

What motivates you to [volunteer/work] in your role as a [crisis supporter/telephone counsellor]?

- What aspects about the role do you find rewarding?
    - Prompts: social, altruistic, purpose

What are the stressors or challenges you face in your role as a [crisis supporter/telephone counsellor] at [organisation]? (Potential prompts: job factors, organisational factors, team factors, work factors)

- Do you find that some interactions with help-seekers will 'stick with you' after your shift? Can you tell me a bit about the nature of those interactions and what it is about those that sticks with you?

Coping strategies

Now I'll ask you some questions about how you deal with stress from your role. This will include questions about the use of alcohol or other drugs. People use alcohol and other drugs for a range of reasons, from socialising to coping with stress. As researchers, we don't make any judgements about what you tell us. If you're uncomfortable with any of these let me know and we can move on to another question or stop the interview.

What do you do to help you cope with stress from your role as a [crisis supporter/telephone counsellor]?

- What do you do for self-care immediately after a difficult shift?
- How do you manage stress from a distressing interaction during a shift?

Have you ever used alcohol or other drugs to cope with stress from your role?

Can you tell me about how supervision affects the way you manage stressors related to your role?

- How about debriefing after a shift?
- How about group discussions with other [crisis supporters/telephone counsellors] helpful?
- Are there any other supports provide by your organisation which you find helpful?

Do you find any other coping strategies or self-care routines helpful for managing stress associated with your role?

Help-seeking

Next, I'm going to ask you some questions about what you think could help support you more in your role.

Is there anything you wish you had available to you after a stressful shift?

Have you ever used, or heard about successful wellbeing support strategies for [crisis supporters/telephone counsellors] at [your organisation]?

What do you envision a successful wellbeing program or supports for [crisis support/telephone counsellors] would look like?

What kinds of mediums would you want to access a wellbeing program or support through? [prompt: smartphone app, website, phone calls, face-to-face, peer support groups]

What supports available to you currently do you not like, or do you wish you could change?

Wrap up

Thank you so much for your time today. Do you have any questions before we finish up?

Appendix D

PRISMA checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	68
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	-
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	69-70
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	71
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	72-73
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	72
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	161
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	72-73
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	73-74
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	161
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	72-73
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	72
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio,	72-73

Section and Topic	Item #	Checklist item	Location where item is reported
		mean difference) used in the synthesis or presentation of results.	
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	72-73
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	73-74
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	72-73
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	72-73
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	73
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	-
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	73
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	-
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	75
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	75
Study characteristics	17	Cite each included study and present its characteristics.	76–81
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	76–81
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	76–81
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	76–81
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	87–90
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	89–90
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	-

Section and Topic	Item #	Checklist item	Location where item is reported
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	-
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	-
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	90–92
	23b	Discuss any limitations of the evidence included in the review.	90–92
	23c	Discuss any limitations of the review processes used.	93
	23d	Discuss implications of the results for practice, policy, and future research.	92–93
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	71
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	71
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	-
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	-
Competing interests	26	Declare any competing interests of review authors.	-
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	-

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71

Appendix E

Systematic review search strategy

Concept	Keywords/search terms	MeSH terms
Population (crisis supporters)	(crisis support* OR help?line OR hot?line OR crisis?line OR lifeline) adj2 (volunteer* OR worker* OR employee*); "crisis supporter*"; "social worker*"; counselor*; counsellor*	Hotlines/; Social Workers/; Counselors/
Wellbeing outcomes	well?being; wellness; burnout; "vicarious trauma*"; "compassion satisfaction"; "secondary traumatic stress"; "compassion fatigue"; "occupational stress*"; "mental health"; "mental ill-health"; "mental illness"; anxiety; depression; coping; "post?traumatic growth"; "post?traumatic stress disorder"; PTSD; trauma; "professional quality of life"; resilience; "self?efficacy"; "psychological distress"; "substance use"; alcohol; drug*; drink*; cannabis; cannabinoids; marijuana; amphetamine*; MDMA; inhalant*; cocaine; ketamine; opioid*; benzodiazepine*	Compassion Fatigue/; Professional Burnout/; Occupational Stress/
Intervention	prevent*; program*; intervention*; training; treatment*; education*; psychoeducation; peer?support*; self?help; self?care; supervi*; workshop; course; debriefing	—
Study design	RCT; efficacy; effectiveness; trial; outcome; evaluation	Clinical Trial/; Evaluation Study/

Appendix F

Additional suggested learning priorities

Commitment from the organisation that they are partners in counsellor wellbeing

“Radio” that plays quiet instrumental pieces during shift

A guided positive self-talk/validation/grounding audio

Prompts for movement breaks

Time to talk to other crisis supporters before, during, and after shift

Pressure points/hand/temple massage

Some recommendations of what to do after shift

How to end a call when someone is repeating themselves without stopping

Mindfulness meditation to listen to before shift (to get ready)

Ways to disconnect from the “virtual world” during shifts, take offline breaks

Positive results of help-seeker surveys to be shared with crisis supporters

Appendix G

Delivery modalities

All modality options

- Factsheets (online)
- Factsheets (printed PDF/flyers)
- Seminars (in-person)
- Seminars (online)
- Informational videos (e.g., YouTube)
- Podcasts
- One-on-one supervision
- Group supervision
- Interactive online training
- Interactive online resources
- Website-based resources
- Online surveys

Appendix H

Barriers and facilitators

Facilitators

- Interactive / gamification
- Meaningful and embedded wellbeing
- Tangible “forced” participation (e.g., a prompt, then a button to say “DONE”)
- Prompt embedded in the shift somewhere
- If ISS used it too (modelling)
- Tangible things – printouts in folder or paste-ups on walls
- Things that connect them to their purpose and are strengths based
- Normalising as part of everyday practice
- Continuous evaluation and feedback (survey or supervisor feedback)
- Evidence base comparison showing benefits of engagement
- Importance of embedding into culture (less reactivity, more proactivity)

Barriers

- Time poor
- Counsellors worried about meeting shift targets
- Lack of flexibility tailoring to individual needs
- Difficulties with technology
- Internal culture / micromanagement
- Wellness strategies being seen as poor performance or not coping
- Tech difficulties
- Not another thing to “tick and flick”
- Workload
- Need to persuade leadership of productivity and retention benefits
- Risk that not engaging could be seen as burnout / compassion fatigue
- Not understanding the tool / difficulty following it

Appendix I 'Compassion Fatigue' factsheet

Compassion Fatigue

What is compassion fatigue?

Compassion fatigue is stress that comes from supporting other people. It can occur at work, if you help others in your job or volunteer role, as well as in your personal life. [1]

Crisis supporters and counsellors often provide emotional support to many people in a single shift. This repeated exposure can increase the risk of compassion fatigue. [2] When you're also caring for people in your personal life, it can feel even harder to keep giving at work. [3]

Research finds that around 20% of crisis supporters are experiencing high compassion fatigue [4], but some estimates report that over 75% may be feeling *some* symptoms [5]. It is important to keep an eye out on how you're feeling and take steps early, like making space for yourself or checking in with a supervisor.

What does it look like?

- ☐ Emotional exhaustion or burnout
- ☐ Reduced ability to feel compassion for others
- ☐ Increased irritability
- ☐ Feeling detached
- ☐ Feeling overwhelmed
- ☐ Risky use of alcohol or other drugs
- ☐ Frequent sick days
- ☐ Withdrawal from colleagues and callers
- ☐ Headaches and sleep disturbances [1, 2, 7]

Prevention	Recovery
Connect with other volunteers or workers: social connectedness is linked to lower rates of compassion fatigue. Take a moment to chat or have a coffee/tea with a colleague. If you work remotely, consider video calling to get to know others at your organisation better. [6]	**Take a break**: compassion fatigue arises from repeatedly helping others. If you're feeling overwhelmed, talk to your supervisor about having breaks during shift or even taking some time off. [6]
Boundaries: try to create clear boundaries between your role and the rest of your life. Some people find it helpful to have rituals before or after shift, for example using the commute to decompress or disposing of any notes from calls. [7]	**Seek professional help**: a psychologist or counsellor can help you explore why you may be reaching your limit and provide strategies to manage stress.[6]
Supervision: try to regularly debrief with a supervisor or experienced colleague/volunteer. As compassion fatigue can make you feel socially exhausted, you may not feel like a catch up at the times when you need it the most. See if you can schedule in quick, regular debriefs (e.g., once a week) and make a commitment to attend them. [7]	

References

[1] Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self care. J. Clin. Psychol. 58, 1433–1441. doi: 10.1002/jclp.10090

[2] Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, *35*(3), 155–163. https://doi.org/10.1007/s10615-007-0091-7

[3] Pollock, K., Armstrong, S., Coveney, C., and Moore, J. (2010) An evaluation of Samaritans telephone and email emotional support service. Nottingham: University of Nottingham. https://wrap.warwick.ac.uk/id/eprint/46736/

[4] Sercombe, J., Devine, E. K., Deady, M., & Mills, K. L. (2025). Holding the line – Mental well-being, stressors, and coping in crisis supporters. *Crisis*, *46*(1), 32–41. https://doi.org/10.1027/0227-5910/a000985

[5] O'Sullivan, J., & Whelan, T. A. (2011). Adversarial growth in telephone counsellors: Psychological and environmental influences. *British Journal of Guidance and Counselling*, *39*(4), 307–323. https://doi.org/10.1080/03069885.2011.567326

[6] Center for Victims of Torture. (2021). *Compassion fatigue*. ProQOL. Retrieved April 17, 2025, from https://proqol.org/compassion-fatigue

Appendix J '9 Things to do on a Break' factsheet

Appendix K

Lesson 4: ACT-based learning program

| Lesson 4: Present-Moment Awareness – Staying Grounded in Crisis Work

4.1. The power of the present moment

Present-moment awareness, often called **mindfulness**, is the ability to notice what's happening right now, without getting pulled into thoughts of the past or worries about the future. It's an intentional effort to pay attention to your current experience: your surroundings, your breath, and your emotions, just as they are.

For crisis supporters or counsellors, this skill is especially important. The role involves intense conversations and unpredictable situations. When you're not grounded in the present, it's easy to drift into self-criticism ("*did I say the right thing?*"), rumination ("*what if they had a more experienced person to talk to?*"), or pre-emptive worry (*"what's going to happen after this call?")*. [could use flashcards or accordion thing here]

These thoughts are very normal – in this role, you are expected to cope with a significant level of uncertainty. However, getting caught up in these patterns can increase your stress and reduce your capacity to stay present with the caller.

Present-moment awareness helps by giving you a pause button. Instead of being swept up in difficult thoughts or feelings, you can *notice* them, *name* them, and *refocus* on what matters most. This may be listening to a caller or showing yourself kindness after a tough shift.

Why it matters for crisis work

In helping professionals, research has found that ACT, mindfulness, and present-moment awareness can help:

- Reduce symptoms of stress and burnout [1, 2]
- Compassion fatigue [3]
- Build deeper relationships with help-seekers, by being more present [4]

Exercise: Leaves down a creek

First we'll go through a mindfulness exercise that you can use **before** or **after shift**.

Later in the module we'll practice a strategy that you can try **during shift**.

This task may help you sit with uncomfortable thoughts and feelings. Imagine you are resting by the side of a creek or stream. The environment can look however you like but try to vividly imagine the sound of the water trickling, the physical sensation of the breeze, and whatever else comes to mind.

Every now and then, a leaf floats by in the creek. When you have a thought, picture it written or placed on one of the leaves as it comes by. The aim is to relax by the creek and keen the stream of thoughts flowing by. If you feel caught on a thought, or you drift away from the visualisation, just notice this and then return to the scene. Try doing this for **5 minutes**.

4.2. Grounding yourself on shift

Sometimes, stress shows up in the middle of a shift, particularly if you are having a challenging interaction over call or chat. You might feel your heart race, your breathing speed up, or your thoughts start to spiral.

These reactions are completely normal. Crisis support is emotionally demanding, and even experienced counsellors can get thrown off balance by a difficult call. These symptoms of stress can be unpleasant but importantly, can negatively affect the quality of the support you're providing (Kitchingman et al., 2018).

Grounding is a strategy to bring yourself back to the here and now. It helps interrupt racing thoughts, reconnect you with the task at hand, and calm some physiological stress. Here are some strategies that are simple and quick, to be usable during or between interactions.

What do other crisis supporters and counsellors do?

When on the phones and you can feel yourself becoming more stressed or anxious about a call, it can be useful to focus on the **sound of the help-seekers voice**. This is a type of sensory grounding—you're using the audio as an anchor for you to:

- (1) try not to focus so much on what's going on in your head, and
- (2) give as much attention to the caller.

If you are helping someone over a chat-based service, you can try to focus on aspects of your current environment, like **your breath** or **your feet on the floor** to achieve a similar grounding effect. You could also focus on the physical act of **notetaking** to try to stay present on the interaction.

Grounding item

Some workers or volunteers find it helpful to keep a small item or task nearby, that they can use during shift to stay anchored. These could be a sensory toy (e.g., fidget spinner, pop-socket, stress ball) or a comforting activity (e.g., colouring in, knitting).

Resources

Box breathing: This activity focuses on your breathing to calm physiological stress and ground yourself. Breathe in for four seconds, hold for four, breathe out for four, then hold for four. This animation can be always accessed in the 'Grounding' page on this website.

4.3 Noticing vs. Reacting

A core principle of ACT is that often thoughts are just that – thoughts. Evaluating a situation can be very helpful: it can help us avoid danger, make decisions, and learn for the future. However, we often over-evaluate, particularly when we are being critical of ourselves.

We know that supporting people, particularly in high-stakes situations, can be stressful. When we're feeling stressed, we may be even more sensitive to negative information and quick to blame ourselves for unexpected outcomes.

For example:

> *"Was I the reason the caller hung up?"*
>
> *"Oh no, I definitely said the wrong thing there"*

These snap judgements hold a lot of power in the moment, but it's likely that in hindsight they are harsh, emotionally driven judgements of the situation. The difference between noticing thoughts and reacting to thoughts, is that thoughts are given power by our reaction to them.

In the heat of the moment of an interaction, it's likely we will have many, many thoughts – positive, negative, harsh, euphoric. With negative thoughts, we want to notice them, but don't attach too much weight to them in the moment.

For instance, you might think "*I'm not going to be able to handle where this call goes*" and then proceed to handle it. You could feel that you contributed to a certain caller not feeling better by the end of the call, but the reality of crisis support and counselling is that you can only control so much of the situation.

Giving the thoughts too much power may then impact your ability to help that caller, but also the next one, and the one after that.Try to acknowledge them, then move them down the creek. However, this process will be a work in progress and requires practice – it won't happen overnight!

4.4 Activities

It can be useful to have an exercise you can use to ground yourself in the present moment to use while you're on shift, or anywhere else.

A common exercise is a five senses grounding technique. Engaging with your senses can get you out of your head and into the here and now by directly interacting with the physical world. For this exercise, you're welcome to write down (or just think about):

- 5 things you can see
- 4 things you can hear
- 3 things you can touch
- 2 things you can smell
- 1 thing you can taste (if you have a beverage/food)

References

Kinman, G., Grant, L., & Kelly, S. (2020). 'It's my secret space': The benefits of mindfulness for social workers. *British Journal of Social Work, 50*(3), 758–777. https://doi.org/10.1093/bjsw/bcz073

Trammel, R. C., Park, G., & Karlsson, I. (2021). Religiously oriented mindfulness for social workers: Effects on mindfulness, heart rate variability, and personal burnout. *Journal of Religion & Spirituality in Social Work: Social Thought, 40*(1), 19–38. https://doi.org/10.1080/15426432.2020.1818358

Zhang, L., Ren, Z., Jiang, G., Hazer-Rau, D., Zhao, C., Shi, C., Lai, L., & Yan, Y. (2021). Self-Oriented Empathy and Compassion Fatigue: The Serial Mediation of Dispositional Mindfulness and Counselor's Self-Efficacy. *Frontiers in Psychology, 11*, 613908. https://doi.org/10.3389/fpsyg.2020.613908

Baker, S. (2016). Working in the present moment: The impact of mindfulness on trainee psychotherapists' experience of relational depth. *Counselling and Psychotherapy Research, 16*(1), 5–14. https://doi.org/10.1002/capr.12038

Appendix L

Infographic of the survey results

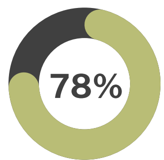
THE MENTAL WELLBEING OF

Crisis supporters

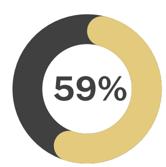
THE UNIVERSITY OF SYDNEY
Matilda Centre

We surveyed the wellbeing of 422 crisis supporters and telephone counsellors across 38 Australian helplines.

CHARACTERISTICS



provide support mostly over the phone, rather than text/chat.



were volunteers, while the rest were paid.

LIVED EXPERIENCE

Over 7 in 10 participants had a lived experience of suicide

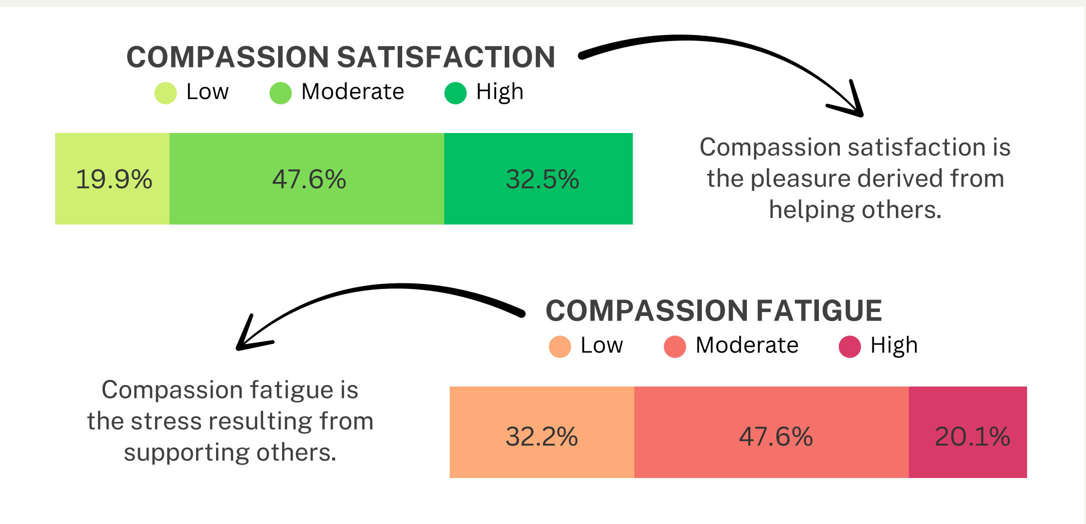
WHAT PARTS OF THE ROLE ARE PERCEIVED AS STRESSFUL?

44% felt impacted by callers expecting **more than their role could deliver**.

40% felt impacted when the caller has **sexual intentions**.

41% felt impacted when the caller is **argumentative**.

40% felt impacted when the interaction ends in **uncertainty**.



We asked participants how they coped with stress from their role.

3 WAYS OF COPING

Problem-focused
Trying to fix the stressful situation.

Examples
- Supervision
- Reframing
- Solution-focused journalling

Strategy associated with **lower** distress

Emotion-focused
Regulating emotions relating a stressor.

Examples
- Humour
- Acceptance
- Venting

More research needed

Avoidant
Trying to disengage with the stressor.

Examples
- Substance use
- Self-distraction (e.g., scrolling on your phone)

Strategy associated with **higher** distress

TAKEAWAYS

Positively, 33% were experiencing high compassion satisfaction from their role. However, 20% reported high compassion fatigue, and are at risk of mental ill-health.

To manage stressful parts of the role, crisis supporters should try to use problem-focused coping strategies and avoid avoidant coping.

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Appendix M

Chapter 2 preface and publication

A version of the study presented in **Chapter 2** is published in *Crisis* as:

Sercombe, J., Devine, E. K., Deady, M., & Mills, K. L. (2025). Holding the line - Mental well-being, stressors, and coping in crisis supporters. *Crisis*, 46(1), 32–41. https://doi.org/10.1027/0227-5910/a000985

The candidate led conceptualisation, data collection, analysis, and wrote the draft manuscript. The remaining authors contributed to conceptualisation and provided edits and recommendations to the manuscript.

Research Trends

Holding the Line – Mental Well-Being, Stressors, and Coping in Crisis Supporters

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Abstract: *Background:* Crisis supporters can experience numerous stressors in their role that can impact their own mental well-being. The area remains underexplored in research, particularly relating to substance use, and new trends in the role such as working remotely or the impact of providing chat-based support. *Aims:* This study identifies crisis support-related stressors, as well as levels of mental well-being and substance use, and factors associated with mental well-being. *Method:* Participants (n = 422) were recruited from four leading crisis support services and via social media advertising. They responded to an online survey, assessing demographics, stressors, mental well-being (compassion fatigue, compassion satisfaction, and psychological distress), substance use, and coping styles. *Results:* Findings identified several important stressors (e.g., argumentative callers) and moderate to high rates of compassion fatigue and psychological distress. High levels of compassion satisfaction were reported, and levels of risky substance use were low. Problem-focused coping emerged as a key factor related to positive mental well-being, while emotion-focused, avoidant coping, remote work, and providing chat-based support were linked to negative well-being. *Limitations:* The study's cross-sectional design and convenience sample limit causal inferences and generalizability. *Conclusion:* The findings reveal significant stressors and challenges in crisis supporters that require consideration and intervention.

Keywords: crisis helpline, crisis supporters, compassion fatigue, mental well-being, occupational mental health

Crisis helplines play a vital role in suicide prevention globally (The World Health Organisation [WHO], 2013). Crisis-focused counseling delivered via helplines has demonstrated effectiveness in reducing caller suicidal ideation and intent (Gould et al., 2007; Williams et al., 2021). Crisis helplines rely on the dedicated work of crisis supporters, who provide support over phone, online chat, or mobile text to people experiencing loneliness, suicidality, emotional distress, and other mental health challenges (Roche & Ogden, 2017). In this role, supporters are exposed to vivid descriptions of traumatic material, suicidality, as well as complex caller profiles, including *frequent callers* (who may call many times a day) and *sex callers* (who exploit the line for sexual gratification; Pirkis et al., 2016; Willems et al., 2020). Adding to these stressors, due to the one-off nature of contact to crisis lines, crisis supporters are unable to anticipate the trajectory or content of a call before answering it (Kitchingman et al., 2024).

The demanding nature of the work can impact the mental well-being of crisis supporters (Kitchingman, Wilson, et al., 2018). Over three in four Australian crisis supporters exhibit symptoms of compassion fatigue, defined as stress resulting from empathetic engagement with others and their trauma (Bride et al., 2007; O'Sullivan & Whelan, 2011). Crisis supporters also report elevated psychological distress (e.g., Kitchingman et al., 2017), which is predictive of mental health disorders (Sunderland et al., 2011). Other helping professionals have reported harmful substance use, perhaps as a way of coping with their role-related stressors (Bonumwezi et al., 2022), but it remains unclear whether this is also the case among crisis supporters.

Crisis support workers are differentially impacted by the demands of the role, and certain individual factors have been found to play a role in determining well-being. Coping styles are important in managing stressors, with avoidant coping generally being associated with negative outcomes (Willems et al., 2020). Other factors such as demographic characteristics, role-specific attributes, or lived experience of trauma have also been investigated. In Chinese crisis supporters, role experience was negatively correlated with burnout and secondary traumatic stress (Zhang et al., 2021). In an Australian sample, younger crisis supporters reported higher functional impairment and psychological distress (Kitchingman et al., 2017), and having a personal history of trauma was associated with increased distress from telephone-based trauma work

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(Dunkley & Whelan, 2006). Further research is needed to assist with identifying risk and protective factors affecting the mental well-being of crisis supporters.

Crisis support work has also evolved in recent years, to adapt to new technologies and working structures. Since the COVID-19 pandemic, crisis supporters have adapted to working remotely rather than from a helpline office, which remains an ongoing practice (Lifeline, 2022). Only one study has investigated the effects of this change, finding some evidence that feelings of isolation from remote work were linked with intention to leave (Willems et al. 2021). Moreover, despite a rapid increase in the provision of crisis support over chat, no research has been conducted investigating the differential impact of chat- and telephone-based modalities on crisis supporter well-being.

Positively, despite the stressors associated with crisis support work, many supporters can feel fulfilled by their role (Willems et al., 2020), which is integral as a significant number of them are unpaid volunteers (WHO, 2013). This fulfillment can manifest as compassion satisfaction, defined as the pleasure derived from helping others (Bride et al., 2007). In crisis supporters, compassion satisfaction is bolstered by perceived social support from other volunteers (Donnellan et al., 2023) and from friends and family (Spafford et al., 2023). As such, maintaining a supportive culture at crisis helplines may be an important factor in promoting compassion satisfaction and reducing turnover.

This study seeks to address the pressing need for high-quality research in the field of crisis supporter well-being. In crisis supporters, the study aims to:

1. identify role-related stressors;
2. investigate levels of mental well-being (including compassion fatigue, compassion satisfaction, psychological distress) and substance use; and
3. identify individual-level characteristics associated with mental well-being.

Methods

Procedure and Participants

An online survey was conducted using the platform Qualtrics between March and July 2023. Eligible participants were Australians aged 18 years or older and currently/recently (in the past 3 months) in a crisis supporter role. Participants were recruited through: (1) emails and newsletters distributed within four of the largest Australian crisis helpline providers and (2) social media advertising, which provided crisis supporters from other Australian crisis helplines the opportunity to participate in the study. The research team collaborated with representatives from each of the four organizations, who reviewed the survey and provided recommendations.

Measures

The online survey included questions pertaining to participant characteristics, stressors, mental well-being, substance use, and coping styles.

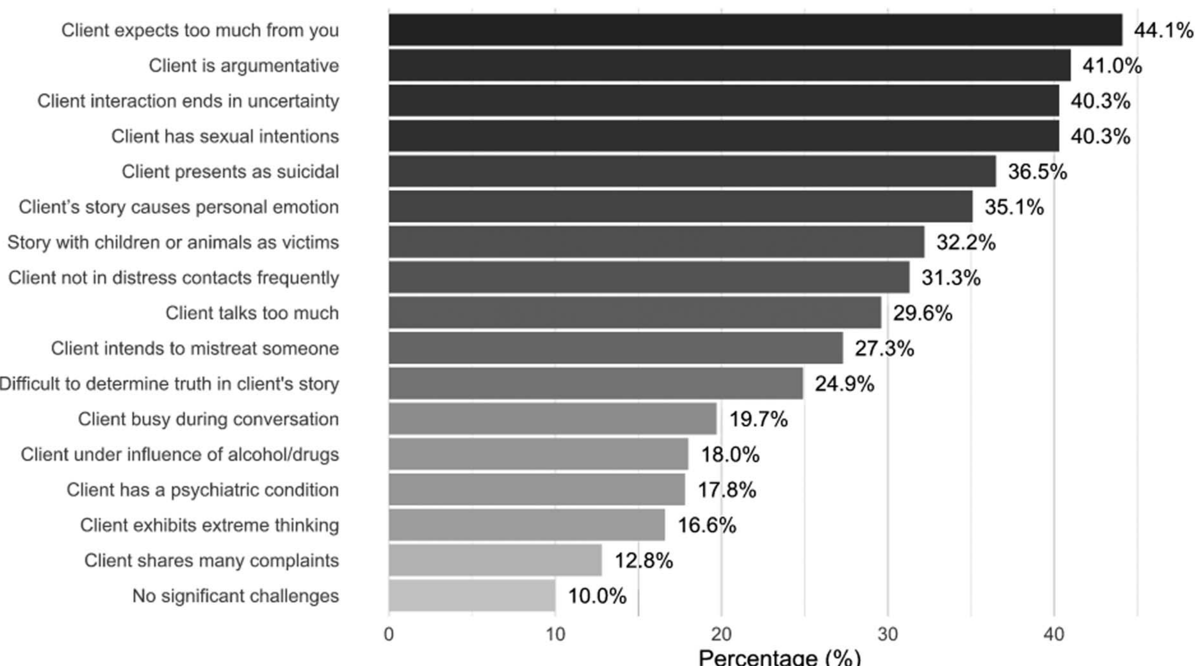

Figure 1. Proportion of the sample endorsing role-related stressors.

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Participant Characteristics

Participants were asked about their demographic information, specifically their age, gender, and rurality. They also provided information regarding characteristics related to their crisis supporter role, including their monthly shift hours, experience, the primary modality they provided support (telephone or chat-based), whether they were a volunteer or paid staff member, and the proportion of hours worked remotely. Additionally, participants were asked to respond to a question asking if they had a lived experience of suicide.

Role-Related Stressors

Willems et al.'s (2021) questionnaire of work-related demands was used to identify stressors. Two items were added as they were highlighted as important by Australian crisis support organizations (relating to personal triggers and uncertainty; see Figure 1). Participants were asked to select all stressors that they felt had negatively affected their mental health or well-being.

Compassion Fatigue and Compassion Satisfaction

The Professional Quality of Life-21 Scale (Heritage et al., 2018) was used to measure compassion fatigue and compassion satisfaction. Participants responded to 21 items on a 5-point scale (1 = *never*, 5 = *very often*). Scores were calculated for two subscales, classifying participants into low (<16 for females, <15 for males), moderate (16–24 for females, 15–24 for males), or high (≥25) levels of compassion fatigue and low (<21), moderate (21–29), or high (≥ 30) levels of compassion satisfaction. Both subscales demonstrated excellent internal consistency in the current study: compassion satisfaction (α = .92) and compassion fatigue (α = .90).

Psychological Distress

The Kessler Psychological Distress Scale (K10; Kessler et al., 2002) was used to measure nonspecific psychological distress in the preceding 30 days. Total scores were categorized as follows: low (10–15), moderate (16–21), high (22–29), and very high (30–50). The internal consistency of the K10 in this study was excellent (α = .92).

Substance Use

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST; Humeniuk et al., 2010) was used to identify risky and disordered substance use across 10 drug types. Use was categorized as low risk (≤10 for alcohol, ≤3 for other drugs), "moderate risk" (11–26 for alcohol, 4–26 for other drugs), or high risk (>27 for alcohol and other drugs). The internal consistency of the various substances was as follows: alcohol (α = .65), tobacco (α = .80), cannabis (α = .92), cocaine (α = .72), amphetamines (α = .39), inhalants (α = .95), sedatives (α = .77), hallucinogens (α = .60), opioids (α = .74), and other substances (α = .91).

Coping Styles

Coping styles were assessed using the 28-item self-report measure Brief COPE (Carver, 1997). Participants were asked how frequently they use different coping strategies in reference to stress from their crisis supporter role. Responses were rated on a 4-point Likert scale (1 = *I haven't been doing this at all*, 4 = *I've been doing this a lot*). The problem- (α = .89) and emotion-focused (α = .83) coping subscales displayed good internal consistency, while the avoidance coping subscale was on the margin of acceptability (α = .69).

Ethical Approval

Ethical approval for this project was obtained from the University of Sydney Human Research Ethics Committee (protocol number: 2022/891).

Data Analysis

A series of linear regression analyses were conducted in R (version 4.2.1; R Core Team, 2023) to examine the association between the dependent variables of compassion fatigue, compassion satisfaction, and psychological distress and 11 predetermined independent variables: gender, age, modality, shift hours, remote work proportion, employment status, experience, lived experience, and the three coping subscales. First, univariable linear regressions were conducted to establish the unadjusted associations between each independent and dependent variable. Subsequently, three separate multivariable linear regression models were run, one for each dependent variable. All independent variables were included as predictor variables in these models to account for any confounding effects. The significance level for all analyses was set at $p < .05$.

Results

Participant Characteristics

Participants (n = 422) were mostly female (82.5%), with a mean age of 46.1 (SD = 15.6). They conducted crisis support at 38 unique Australian crisis helplines, primarily over telephone (78.0%) and were mostly volunteers (59.2%). Participants worked a mean of 40.5 (SD = 45) monthly shift hours and just over half (52.6%) had been at

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Table 1. Participant characteristics

Characteristic	Descriptive statistics
Gender (*n* [%])	
Female	334 (81.01)
Male	71 (17.2)
Nonbinary	7 (1.7)
Age (*M* [*SD*])	46.1 (15.6)
Geographic region (*n* [%])	
Major urban area	338 (80.9)
Regional/rural/remote	84 (19.9)
Crisis supporter role status (*n* [%])	
Paid	172 (40.8)
Volunteer	250 (59.2)
Primary modality (*n* [%])	
Telephone	329 (78.0)
Chat	93 (22.0)
Experience as crisis supporter (*n* [%])	
<1 year	101 (23.9)
1–2 years	121 (28.7)
3–5 years	92 (21.8)
≥6 years	108 (29.5)
Remote work proportion (*M*% [*SD*])	33.5 (41.7)
Hours per month (*M* [*SD*])	40.5 (45)
Lived experience of suicide [a] (*n* [%])	
Through suicidal ideation	169 (40.0)
Through suicide attempt	51 (12.1)
Through a loved one who has attempted/died by suicide	184 (43.6)
None	117 (27.7)

Note. SD = standard deviation. [a] Lived experience categories were not mutually exclusive.

the helpline for 2 years or less. On average, workers spent a third of their time working remotely. Over two-thirds (70.5%) had a lived experience of suicide. See Table 1 for the full breakdown of participant characteristics.

Stressors

Figure 1 shows the proportion of participants who endorsed each role-related stressor as having had a negative impact on their mental health or well-being. The most commonly endorsed stressors *were client expects too much from you that you cannot provide as part of your role* (44.1%), *client is argumentative* (41.0%), *client has sexual intentions with the conversation* (40.3%), and client interaction ends in uncertainty (both 40.3%). Ten percent of participants indicated that they had no significant challenges in the role that negatively affected their mental health or well-being.

Mental Well-Being and Substance Use

Compassion Fatigue, Satisfaction, and Psychological Distress

The mean compassion fatigue score was in the moderate range ($M = 19.7$, $SD = 6.6$). Overall, 30.6% of participants reported low levels, 49.3% moderate levels, and 20.1% high levels of compassion fatigue. For compassion satisfaction, the mean score also fell within the moderate range ($M = 26.1$, $SD = 5.8$), with 19.9% of participants exhibiting low levels, 47.6% moderate levels, and 32.5% high levels. In terms of psychological distress, the mean K10 score was classified as moderate ($M = 18.6$, $SD = 7.5$), with 44.2% scoring low, 25.5% scoring moderate, 20.2% scoring high, and 10.3% scoring very high.

Substance Use

The substances with the highest prevalence of lifetime use were alcohol (89.1%), cannabis (49.8%), followed by

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Table 2. Substance use mean scores and risk categories by class of substance

Substance class	ASSIST score[a]	Abstinent	Low risk	Moderate risk	High risk
	M (*SD*)	*n* (%)	*n* (%)	*n* (%)	*n* (%)
Alcohol	6.9 (5.6)	44 (10.9%)	288 (71.3%)	70 (17.3%)	2 (0.5%)
Cannabis	2.1 (4.8)	203 (50.2%)	170 (42.1%)	29 (7.2%)	2 (0.5%)
Cocaine	0.9 (2.1)	324 (80.2%)	74 (18.3%)	6 (1.5%)	0 (0.0%)
Amphetamines	1.1 (2.2)	307 (76.0%)	87 (21.5%)	10 (2.5%)	0 (0.0%)
Inhalants	0.9 (3.0)	356 (88.1%)	45 (11.1%)	3 (0.7%)	0 (0.0%)
Sedatives	3.2 (4.9)	307 (76.0%)	66 (16.3%)	31 (7.7%)	0 (0.0%)
Hallucinogens	0.6 (1.5)	329 (81.4%)	71 (17.6%)	4 (1.0%)	0 (0.0%)
Opioids	1.9 (3.3)	362 (89.6%)	35 (8.7%)	7 (1.7%)	0 (0.0%)
Other	6.6 (9.4)	394 (97.5%)	5 (1.2%)	4 (1.0%)	1 (0.2%)

Note. *SD* = standard deviation. [a]ASSIST score among users of each substance.

amphetamines and sedatives (both 24.0%). The least commonly used substance classes were other (2.5%), opioids (10.4%), and inhalants (11.9%). For the full ASSIST results, see Table 2.

Factors Associated With Mental Well-Being

The univariable regression results are presented in Electronic Supplementary Material 1 (ESM 1) and the multivariable regression results in Table 3.

Compassion Fatigue

Univariable analyses showed that all participant characteristics were independently associated with compassion fatigue. After including all participant characteristics in a multivariable linear regression, age, modality, shift hours, and lived experience were no longer statistically significantly associated with compassion fatigue. Gender, remote work, experience, and the coping style subscales remained statistically significant. Identifying as female, more frequent remote work, and ≥3 years of experience were associated with higher levels of compassion fatigue. Regarding coping styles, problem-focused coping had a statistically significant negative relationship with compassion fatigue. Conversely, emotion-focused coping and avoidant coping were associated with higher compassion fatigue.

Compassion Satisfaction

In univariable regression analyses, age, modality, remote work, emotion-focused coping, and avoidant coping were independently associated with compassion satisfaction. When all participant characteristics were included in a multivariable model, only emotion-focused coping and avoidant coping retained statistically significant associations whereby reported use of emotion-focused and avoidant coping was associated with lower compassion satisfaction scores. While not statistically significant in univariable analysis, problem-focused coping demonstrated a statistically significant positive association with compassion satisfaction in the multivariable model controlling for participant characteristics. As problem-focused coping increased, compassion satisfaction scores also increased.

Psychological Distress

Univariable analyses revealed that all participant characteristics, except for gender, were independently associated with distress. In the multivariable analysis, only age, modality, lived experience, and coping style retained their statistically significant associations. Specifically, younger age, providing support over chat, and having a lived experience were associated with higher distress. Problem-focused coping showed a statistically significant negative association with distress in the multivariable model, in contrast to its positive association in the univariable model. Emotion-focused coping and avoidant coping retained their statistically significant positive associations with distress in the multivariable model.

Discussion

The present study contributes to an understudied field by investigating the mental well-being of crisis supporters. This is the first study to compare the well-being of chat-based and telephone-based crisis supporters, investigate substance use in the population, and identify stressors within the Australian helpline context. It also adds to limited research on the role of individual and role-related characteristics in determining well-being, including the effects of providing crisis support remotely.

The first aim was to identify stressors for crisis supporters. The most endorsed stressor related to clients expecting more than the crisis supporter role can provide. This is in line with qualitative research that has identified that some callers contact crisis lines for support with complex

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Table 3. Multivariable regression results of associations between crisis supporter characteristics and mental well-being outcomes

	Compassion fatigue		Compassion satisfaction		Psychological distress	
Characteristic	Beta [95% CI]	*p*	Beta [95% CI]	*p*	Beta [95% CI]	*p*
Age	−0.03 [−0.07, 0.01]	.155	0.04 [0.00, 0.08]	.065	−0.11 [−0.16, −0.07]	**<.001**
Gender[a]						
Female	—		—		—	
Male	−2.12 [−3.42, −0.83]	**.001**	0.54 [−0.89, 1.97]	.458	−0.24 [−1.74, 1.27]	.756
Modality						
Telephone	—		—		—	
Chat	0.47 [−1.11, 2.05]	.557	−1.51 [−3.25, 0.22]	.087	1.91 [0.08, 3.73]	**.041**
Shift hours	0.01 [−0.01, 0.02]	.524	0.00 [−0.02, 0.02]	.901	0.00 [−0.02, 0.02]	.879
Remote work	0.02 [0.00, 0.04]	**.021**	0.00 [−0.02, 0.02]	.903	0.00 [−0.02, 0.02]	.837
Employment status				.158		
Paid	—		—		—	
Volunteer	−0.29 [−1.83, 1.25]	.711	−1.22 [−2.91, 0.48]		−0.12 [−1.91, 1.67]	.899
Experience		**.008**		.39		.702
≤1 year	—		—		—	
1–2 years	1.19 [−0.16, 2.53]	.085	0.46 [−1.02, 1.95]	.540	−0.12 [−1.68, 1.45]	.883
3–5 years	2.53 [1.05, 4.02]	**.001**	−0.74 [−2.37, 0.89]	.375	0.70 [−1.02, 2.42]	.425
≥6 years	1.84 [0.33, 3.35]	**.017**	0.45 [−1.21, 2.10]	.597	0.61 [−1,14, 2.42]	.495
Lived experience						
Yes	—		—		—	
No	−0.91 [−1.98, 0.16]	.094	−0.94 [−2.11, 0.24]	.117	−2.15 [−3.39, −0.91]	**<.001**
Problem-focused coping	−0.14 [−0.28, −0.01]	**.042**	0.34 [0.19, 0.49]	**<.001**	−0.23 [−0.39, −0.07]	**.004**
Emotion-focused coping	0.29 [0.16, 0.43]	**<.001**	−0.18 [−0.33, −0.03]	**.017**	0.34 [0.18, 0.50]	**<.001**
Avoidant coping	1.04 [0.81, 1.28]	**<.001**	−0.74 [−1.00, −0.48]	**<.001**	1.13 [0.85, 1.40]	**<.001**

Note. CI = confidence Interval. [a]Nonbinary participants were not included in analyses due to low cell counts. Bolded values indicate $p < .05$.

mental illness, in place of consulting healthcare professionals (Vattøe et al., 2020). This may result in crisis supporters feeling helpless to support these callers (Kitchingman et al., 2024). Other highly endorsed stressors, for example suicidal callers, or interactions ending in uncertainty have been well documented in qualitative research (Kitchingman et al., 2024; Vattøe et al., 2020; Willems et al., 2020). Such seemingly inherent stressors may be best managed by promoting healthy coping strategies among crisis supporters (see below).

Argumentative and sexually motivated callers were among the most endorsed stressors. The high accessibility of helplines can lead to misuse, with sex calls causing frustration and feelings of betrayal in crisis supporters (Kitchingman et al., 2024; Willems et al., 2020). This is a complex issue, and although helplines often have no-tolerance policies for these callers (for example: Lifeline, 2024), organizations should explore further methods of protecting their workers and volunteers from abuse.

Most crisis supporters reported low to moderate compassion fatigue. However, around one in five fell into the high compassion fatigue category. There is limited data with which to compare this finding, though it is higher than previously reported rates in Australian (Kitchingman, Caputi, et al., 2018) and American (Spafford et al., 2023) crisis supporters, where over 80% scored low levels. However, compassion fatigue was measured differently in these studies and conceptualized as a combination of burnout and secondary traumatic stress.

Rates of compassion satisfaction were high, with four in five crisis supporters reporting moderate-high levels. As many crisis supporters are volunteers, high levels of compassion satisfaction are arguably more important in this population, compared to paid caring roles where there is also a financial motivation (WHO, 2013). Feelings of reward may compensate for role-related distress and has been suggested to be a key motivator for people to stay in their role (Willems et al., 2020). The high rates of compassion satisfaction of the current sample are consistent with this theory.

Rates of high or very high levels of psychological distress were high relative to the general population (30.5% vs. 10%; Slade et al., 2011) but commensurate with those of other helping professionals (Petrie et al., 2018). Further,

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these levels of psychological distress are unsurprising as a large proportion of the sample had a lived experience of suicide (40% had experienced suicidal thoughts, 12.1% had attempted suicide). Given that psychological distress can also impair an individual's crisis counseling skills (Kitchingman et al., 2017), this underscores the importance of supporting crisis workers in their role. The distress levels of crisis supporters are not only crucial for their own health but can also impact the quality of crisis helplines and have wide-reaching impacts on communities.

Levels of substance use varied greatly based on substance class. A minority of the sample was engaging in risky substance use, with alcohol, sedatives, and cannabis the highest drugs of concern. Risky substance use is often used as a coping strategy by helping professionals who encounter traumatic material as part of their job (Bonumwezi et al., 2022). This study is the first to preliminarily investigate substance use in crisis supporters, and future work should extend this research.

In the multivariable model, female gender, remote work, and experience in role were associated with increased compassion fatigue. By contrast, conducting crisis support over chat and younger age were associated with higher psychological distress. The finding that females had higher compassion fatigue is consistent with research conducted among nurses (Heritage et al., 2018). Moreover, in line with Kitchingman et al. (2017), younger crisis supporters were more at risk of experiencing psychological distress. However, this finding may be unrelated to the role, as young people have higher rates of mental ill-health in population-wide surveys (Butterworth et al., 2020).

Interestingly, crisis supporters with more experience in the role had higher compassion fatigue scores, contrasting with previous research that found that more experienced crisis supporters experienced less distress (Kitchingman et al., 2017). Compared to those with 1 year of experience or less, compassion fatigue appeared to peak for those with 3–5 years' experience, and while still elevated for those with 6 years' experience or more, it appeared to drop off. It may be that crisis supporters with a tenure of over 5 years report lower compassion fatigue due to survivorship bias, making a choice after a certain time as to whether they continue in the role. Taken together, organizations should take particular care in supporting crisis supporters who are female, younger, or have more experience in the role, as they may be more at risk of adverse outcomes.

On average, crisis supporters in this study worked remotely one-third of the time, with more remote work linked to higher compassion fatigue, but not to psychological distress or compassion satisfaction. These mixed findings are in accordance with Willems et al.'s (2021) study. Isolation is a significant concern of conducting crisis support from home, and the absence of face-to-face interactions can limit opportunities for supervision or informal debriefing (Button et al., 2023). While remote work adds flexibility to working arrangements, crisis helpline organizations should consider impacts on mental well-being, particularly in those who are completely remote (18.5% of this sample). Implementing strategies, such as virtual team building and peer support (Snyder et al., 2023), or providing regular opportunities for debriefing and supervision, which is already widely practiced by helplines (Furlonger & Taylor, 2013), may help to mitigate the negative effects of remote work.

Another notable finding was that chat-based crisis supporters had higher psychological distress than those providing support over telephone. Compared to telephone crisis lines, chat-based lines have been shown to have higher rates of help-seekers experiencing suicidality (Williams et al., 2021). As such, chat-based supporters may have higher exposure to traumatic material. It may also be that they have less knowledge of the outcome of interactions and may deal with more uncertainty compared to phone-based supporters. Chat-based crisis support is a rapidly growing field, and these findings emphasize a need for further research and organizational efforts to understand and address the unique challenges faced by chat-based crisis supporters.

Regarding coping styles, higher problem-focused coping was linked to positive mental well-being, replicating past findings in crisis supporter research (Kitchingman, Caputi, et al., 2018; Dunkley & Whelan, 2006). Conversely, it was found that emotion-focused coping and avoidant coping were associated with poorer mental well-being, which is consistent with research from Kitchingman, Caputi, et al. (2018) and corroborates Roche and Ogden's (2017) findings that avoidant coping was related to burnout in crisis supporters. In demanding roles like crisis support, effective coping strategies are crucial. Training at crisis support organizations should promote problem-focused coping strategies, such as reframing stressors or solution-focused journaling, and dissuade avoidant coping, such as ignoring distress resultant of the role or engaging in substance use (Carver, 1997).

Strengths

This study had several strengths. The broad sample included crisis supporters across 38 Australian helplines, thereby increasing the generalizability of findings. The substantial sample size (n = 422) was obtained through a two-pronged recruitment strategy, involving social media advertising to reach crisis supporters at a variety of helplines, as well as internal communications at four major Australian crisis support organizations. The sample enabled the study to be powered to control for potential confounding factors such as participant characteristics and build a more robust picture of the correlates of well-being.

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Limitations

There are several limitations to this study that must be acknowledged. While the recruitment strategy was multifaceted, it was ultimately a convenience sample and may not be representative. For example, the sample was predominantly female, which is similar to previous studies conducted with Australian crisis supporters (Kitchingman et al., 2017) but higher than the 65% reported in workforce data (Lifeline, 2022). Additionally, although psychological distress was not included as a covariate in the compassion fatigue or satisfaction analyses, and vice versa, it is important to note that these outcomes are related and may interact with one another. Furthermore, the marginally acceptable internal consistency of the avoidant coping subscale suggests that further research may be needed to confirm relevant findings. Another limitation is the cross-sectional nature of the data. While the study was able to identify associations between variables, the results do not infer causality of relationships. Future studies of crisis supporter well-being should look to conduct longitudinal research to establish temporal antecedents of these outcomes.

Conclusion

In summary, this study involved a robust investigation of crisis supporter mental well-being. A notable subset of crisis supporters were suffering from compassion fatigue and high psychological distress, and numerous key stressors were identified. However, high levels of compassion satisfaction were also evident. The findings of this study also speak to the importance of the relationship between coping strategies and mental well-being. Given the pivotal role crisis supporters play in suicide prevention, they should be supported in their role to ensure the resultant quality of crisis helplines. There is a critical need for research on well-being interventions for crisis supporters, as no studies have been published on this subject to date.

Electronic Supplementary Material

The electronic supplementary material is available with the online version of the article at https://doi.org/10.1027/0227-5910/a000985

ESM 1. Univariable analyses.

References

Bonumwezi, J. L., Tramutola, D., Lawrence, J., Kobezak, H. M., & Lowe, S. R. (2022). Posttraumatic stress disorder symptoms, work-related trauma exposure, and substance use in first responders. *Drug and Alcohol Dependence*, *237*, Article 109439. https://doi.org/10.1016/j.drugalcdep.2022.109439

Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, *35*(3), 155–163. https://doi.org/10.1007/s10615-007-0091-7

Butterworth, P., Watson, N., & Wooden, M. (2020). Trends in the prevalence of psychological distress over time: Comparing results from longitudinal and repeated cross-sectional surveys. *Frontiers in Psychiatry*, *11*, Article 595696. https://doi.org/10.3389/fpsyt.2020.595696

Button, P., Fallon, L., & Fowler, K. (2023). The impact of perceived social support and coping on distress in a sample of Atlantic Canadian health professional students during COVID-19 compared to pre-COVID peers. *BMC Psychology*, *11*(1), Article 175. https://doi.org/10.1186/s40359-023-01218-y

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine*, 4(1), 92–100. https://doi.org/10.1207/s15327558ijbm0401_6

Donnellan, A., Bradshaw, D., & McMahon, J. (2023). Social support and self-efficacy serially mediate the association of strength of identification with text-based crisis support line volunteers' compassion fatigue and compassion satisfaction. *Journal of Community & Applied Social Psychology*, *34*(1), Article e2735. https://doi.org/10.1002/casp.2735

Dunkley, J., & Whelan, T. A. (2006). Vicarious traumatisation in telephone counsellors: Internal and external influences. *British Journal of Guidance and Counselling*, *34*(4), 451–469. https://doi.org/10.1080/03069880600942574

Furlonger, B., & Taylor, W. (2013). Supervision and the management of vicarious traumatisation among australian telephone and online counsellors. *Australian Journal of Guidance and Counselling*, *23*(1), 82–94. https://doi.org/10.1017/jgc.2013.3

Gould, M. S., Kalafat, J., HarrisMunfakh, J. L., & Kleinman, M. (2007). An evaluation of crisis hotline outcomes part 2: Suicidal callers. *Suicide and Life-Threatening Behavior*, *37*(3), 338–352. https://doi.org/10.1521/suli.2007.37.3.338

Heritage, B., Rees, C. S., & Hegney, D. G. (2018). The ProQOL-21: A revised version of the Professional Quality of Life (ProQOL) scale based on Rasch analysis. *PLoS ONE*, *13*(2), Article e0193478. https://doi.org/10.1371/journal.pone.0193478

Humeniuk, R., Ali, R., Babor, T. F., Farrell, M., Formigoni, M. L., Jittiwutikarn, J., De Lacerda, R. B., Ling, W., Marsden, J., Monteiro, M., Nhiwatiwa, S., Pal, H., Poznyak, V., & Simon, S. (2008). Validation of the alcohol, smoking and substance involvement screening test (ASSIST). *Addiction*, *103*(6), 1039–1047. https://doi.org/10.1111/j.1360-0443.2007.02114.x

Kessler, R., Andrew, G., Colpe, L., Hiripi, E., Mroczek, D., Normand, S., Walters, E., & Zaslavksy, A. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, *32*(6), 959–976. https://doi.org/10.1017/s0033291702006074

Kitchingman, T. A., Caputi, P., Woodward, A., Wilson, C. J., & Wilson, I. (2018). The impact of their role on telephone crisis support workers' psychological wellbeing and functioning: Quantitative findings from a mixed methods investigation. *PLoS ONE*, *13*(12), Article e0207645. https://doi.org/10.1371/journal.pone.0207645

Kitchingman, T. A., Caputi, P., Woodward, A., Wilson, I., & Wilson, C. (2024). The impact of their role on telephone crisis support workers' psychological wellbeing and functioning: Qualitative findings from a mixed methods investigation. *Death Studies*. Advance online publication. https://doi.org/10.1080/07481187.2024.2376038

Kitchingman, T. A., Wilson, C. J., Caputi, P., Wilson, I., & Woodward, A. (2017). Testing a model of functional impairment in telephone crisis support workers. *Crisis*, *38*(6), 403–412. https://doi.org/10.1027/0227-5910/a000435

Kitchingman, T. A., Wilson, C. J., Caputi, P., Wilson, I., & Woodward, A. (2018). Telephone crisis support workers' psychological distress

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and impairment: A systematic review. *Crisis*, *39*(1), 13–26. https://doi.org/10.1027/0227-5910/a000454
Lifeline. (2022). *Lifeline annual report 2022*. https://www.lifeline.org.au/media/hikdmw5w/lifeline-annual-report-2022.pdf
Lifeline Australia. (2024). *Lifeline policies*. https://www.lifeline.org.au/policies/
O'Sullivan, J., & Whelan, T. A. (2011). Adversarial growth in telephone counsellors: Psychological and environmental influences. *British Journal of Guidance and Counselling*, *39*(4), 307–323. https://doi.org/10.1080/03069885.2011.567326
Petrie, K., Milligan-Saville, J., Gayed, A., Deady, M., Phelps, A., Dell, L., Forbes, D., Bryant, R. A., Calvo, R. A., Glozier, N., & Harvey, S. B. (2018). Prevalence of PTSD and common mental disorders amongst ambulance personnel: A systematic review and meta-analysis. *Social Psychiatry and Psychiatric Epidemiology*, *53*(9), 897–909. https://doi.org/10.1007/s00127-018-1539-5
Pirkis, J., Middleton, A., Bassilios, B., Harris, M., Spittal, M. J., Fedszyn, I., Chondros, P., & Gunn, J. (2016). Frequent callers to telephone helplines: New evidence and a new service model. *International Journal of Mental Health Systems*, *10*(1), Article 43. https://doi.org/10.1186/s13033-016-0076-4
R Core Team. (2023). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/
Roche, A., & Ogden, J. (2017). Predictors of burnout and health status in Samaritans' listening volunteers. *Psychology, Health and Medicine*, *22*(10), 1169–1174. https://doi.org/10.1080/13548506.2017.1280176
Slade, T., Grove, R., & Burgess, P. (2011). Kessler Psychological Distress Scale: Normative data from the 2007 Australian National Survey of Mental Health and Wellbeing. *Australian & New Zealand Journal of Psychiatry*, *45*(4), 308–316. https://doi.org/10.3109/00048674.2010.543653
Snyder, D. J., Mournet, A. M., & Pao, M. (2023). Reflections on experiential training in meaning-centered psychotherapy: How MCP ended up facilitating professional wellbeing. *Palliative & Supportive Care*, *21*(1), 38–42. https://doi.org/10.1017/S1478951522000414
Spafford, S. G., Schuler Adair, E., Baker, S., & Dedrickson, D. (2024). Mental wellbeing and resilience in suicide prevention crisis line volunteers. *Community Mental Health Journal*, *59*, 1562–1567. https://doi.org/10.1007/s10597-023-01143-9
Sunderland, M., Slade, T., Stewart, G., & Andrews, G. (2011). Estimating the prevalence of DSM-IV mental illness in the Australian general population using the Kessler Psychological Distress Scale. *Australian and New Zealand Journal of Psychiatry*, *45*(10), 880–889. https://doi.org/10.3109/00048674.2011.606785
Vattøe, I. E., DeMarinis, V., Haug, S. H. K., Lien, L., & Danbolt, L. J. (2020). Emotional stressors among volunteers operating a diaconal suicide-prevention crisis line in Norway: A qualitative study. *British Journal of Guidance and Counselling*, *48*(4), 563–575. https://doi.org/10.1080/03069885.2019.1646409
WHO. (2013). *Preventing suicide: A resource for establishing a crisis line*. https://iris.who.int/bitstream/handle/10665/311295/WHO-MSD-MER-18.4-eng.pdf
Willems, R., Drossaert, C., & Vuijk, P. (2020). Impact of crisis line volunteering on mental wellbeing and the associated factors: A systematic review. *International Journal of Environmental Research and Public Health*, *17*(5), 1–22. https://doi.org/10.3390/ijerph17051641
Willems, R. C. W. J., Drossaert, C. H. C., Miedema, H. S., & Bohlmeijer, E. T. (2021). How demanding is volunteer work at a crisis line? An assessment of work- and organization-related demands and the relation with distress and intention to leave. *Frontiers in Public Health*, *9*, Article 699116. https://doi.org/10.3389/fpubh.2021.699116
Williams, K., Fildes, D., Kobel, C., Grootemaat, P., Bradford, S., & Gordon, R. (2021). Evaluation of outcomes for help seekers accessing a pilot SMS-based crisis intervention service in Australia. *Crisis*, *42*(1), 32–39. doi:10.1027/0227-5910/a000681
Zhang, L., Ren, Z., Jiang, G., Hazer-Rau, D., Zhao, C., Shi, C., Lai, L., & Yan, Y. (2021). Self-oriented empathy and compassion fatigue: The serial mediation of dispositional mindfulness and counselor's self-efficacy. *Frontiers in Psychology*, *11*, Article 613908. https://doi.org/10.3389/fpsyg.2020.613908

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Conflict of Interest
J.S. and M.D. have previously volunteered as a crisis supporter at Lifeline Australia.

Publication Ethics
Informed consent was obtained from all participants included in the study. This study received ethical approval from the University of Sydney Human Research Ethics Committee (protocol number: 2022/891).

Authorship
All authors contributed to conceptualisation and writing review & editing. J.S. was responsible for writing – original draft, investigation, and formal analysis. E.D., M.D., and K.M., additionally contributed in a supervisory capacity. All authors approved the final version of the article.

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